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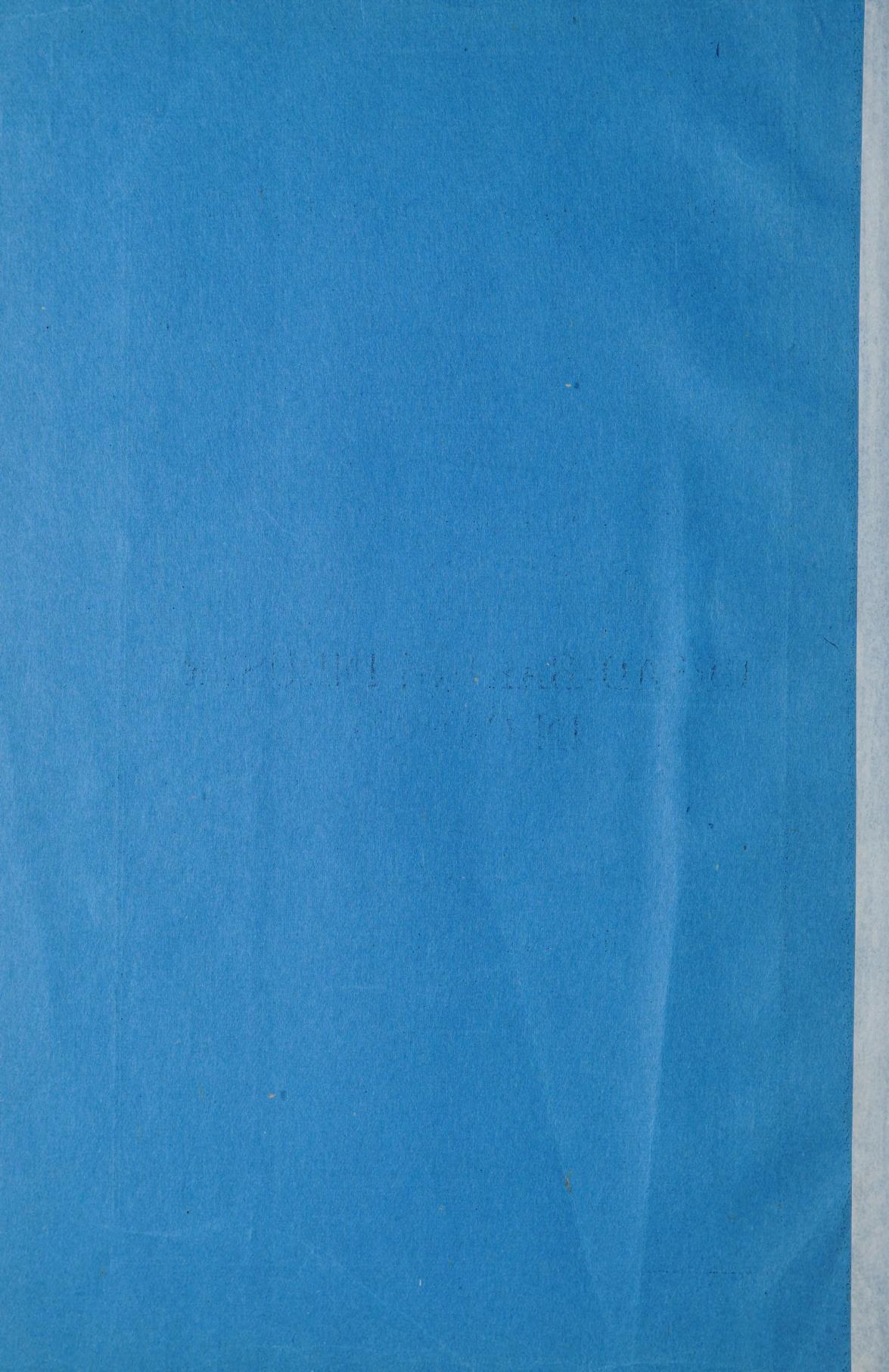
COMBINES INVESTIGATION ACT

INVESTIGATION INTO  
AN ALLEGED COMBINE  
IN THE  
**BREAD-BAKING INDUSTRY  
IN CANADA**

Report of Registrar  
February 5, 1931

OTTAWA: F. A. ACLAND, Printer to the King's Most Excellent Majesty, 1931

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# Department of Labour, Canada

HON. G. D. ROBERTSON - MINISTER OF LABOUR

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## *COMBINES INVESTIGATION ACT*

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INVESTIGATION INTO

AN ALLEGED COMBINE

IN THE

# BREAD-BAKING INDUSTRY IN CANADA

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Report of Registrar

February 5, 1931

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BRAD-BAZING INDUSTRIES  
IN CANADA



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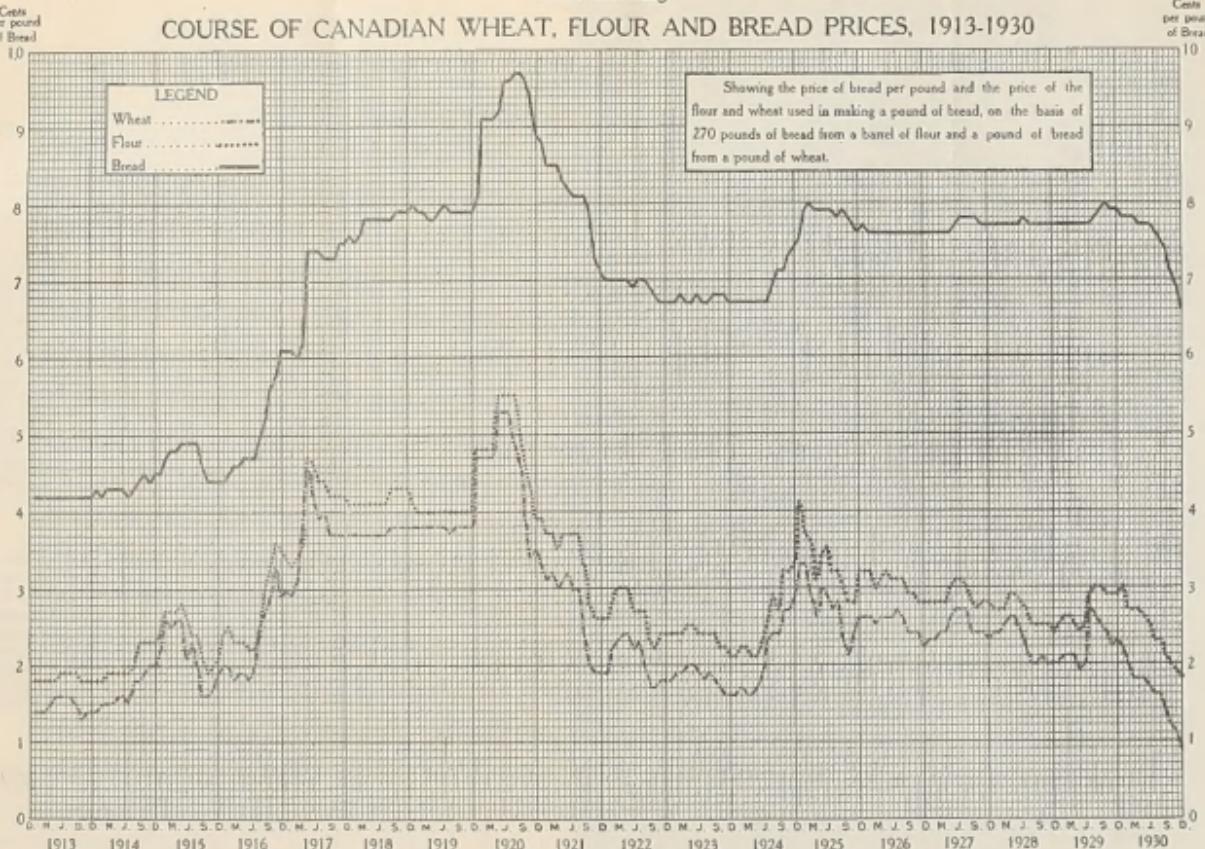
CHART NO. I

## Chart Showing

## COURSE OF CANADIAN WHEAT, FLOUR AND BREAD PRICES, 1913-1930

Cents  
per pound  
of Bread

10





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## PREFACE

The following report of an investigation into an alleged combine in the bread-baking industry in Canada seeks to put on record much of the information secured during the inquiry which has just been completed under the Combines Investigation Act. This investigation has been in the nature of a preliminary inquiry, and as such has been carried on, at comparatively small expense, while other investigations have been under way. It has taken more time and covered more territory than most of our preliminary inquiries, but its scope is not to be compared with the very comprehensive investigations which in recent years have been made on the same subject in Great Britain and in the United States. These British and American sources have been drawn upon for purposes of comparison.

Canadian statistical and other information, including prices of bread, flour and wheat, has been obtained from the Dominion Bureau of Statistics, the Statistics Branch of the Department of Labour, and other official sources. In addition nearly three hundred bakers and baking companies in the different provinces, representing both chain bakeries and independents, including large and small establishments, as well as a number of chain store organizations, have met our requests for information concerning their business including such details as costs, prices, production, and formulas. Much of this information has been recorded in the following pages. In view of the widespread interest in the question of bread prices, and in order to bring together available data bearing on the subject, a number of statistical tables of prices have been included in the appendix.

Throughout this inquiry assistance of the greatest value has been given by Mr. F. A. Carman, as well as by Mr. H. M. Brown and the other members of the staff of the Combines Investigation Branch of the Department of Labour. The charts have been prepared for publication through the co-operation of Mr. F. C. C. Lynch, Director of the National Development Bureau of the Department of the Interior.

F. A. McGREGOR,  
*Registrar, Combines Investigation Act.*

OTTAWA, February 5, 1931

## REPORT OF REGISTRAR

OTTAWA, February 5, 1931.

The Honourable G. D. ROBERTSON,  
Minister of Labour,  
Ottawa.

SIR,—In accordance with your instructions, a preliminary inquiry under the Combines Investigation Act has been made with the object of securing information concerning the course of bread prices in Canada and their relation to prices of wheat and flour, and of ascertaining whether combination within the industry has been responsible for enhancing or keeping up the price of bread in the Dominion to the detriment of the public.

Requests for such an investigation have been received from many sources, including the Vancouver City Council and other public bodies in different parts of the Dominion. In some cases it has been suggested that investigation should be made at the same time into the prices of other wheat products. Rather, however, than await the completion of such an extensive inquiry, it has been thought desirable to limit the scope of the present report to the bread-baking industry.

The only statutory application for investigation, in the form required by Section 11 of the Combines Investigation Act, was received on November 21, 1930, signed by six citizens of the City of Winnipeg, who alleged a combine of certain bakers in that city and district. Prior to the receipt of this application, the present inquiry, which has been in the nature of a general survey of the situation throughout Canada, was well under way, and it was considered desirable to proceed with it along these general lines rather than attempt to deal separately with the local aspects of a situation which was apparently general. Complaints concerning bread prices have been received from many other parts of the country. In dealing with these complaints, it has been recognized that the scope of the Combines Investigation Act does not extend to the investigation of prices unless combination or monopoly operating against the public interest is alleged or believed to exist. Even where such charges are made it is obvious that, in an inquiry such as this, detailed examination of possible arrangements among local bakers in each community is not practicable.

Almost without exception the complaints received can be summarized in one or more of the following allegations:—

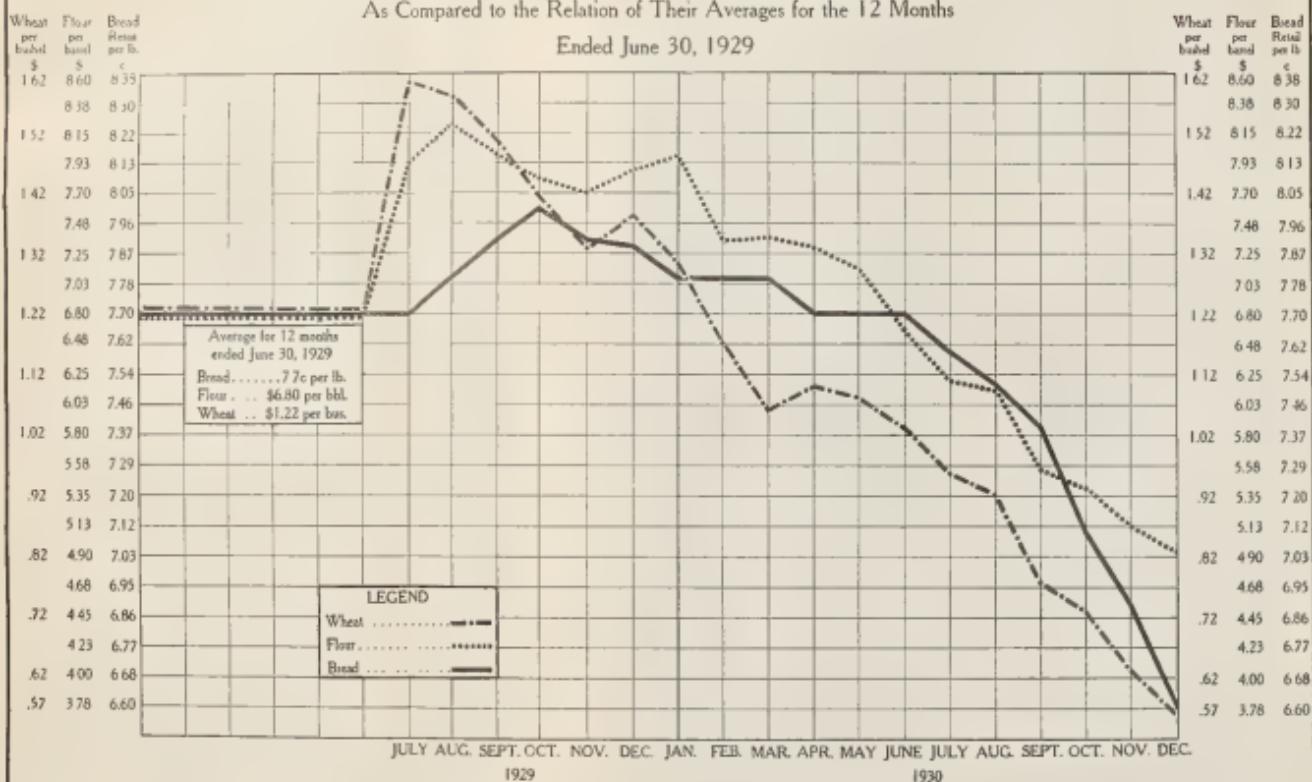
- (1) That the rapid decline in wheat prices during 1930 was not accompanied by corresponding reductions in the price of bread;
- (2) That, in spite of the fact that wheat prices in the latter part of 1930 were far below the pre-war level, the price of bread in 1930 was substantially higher than in 1913;
- (3) That the price of bread in Canada is approximately three cents a pound higher than in the United Kingdom;
- (4) That combinations of either bakers or millers or both must be responsible for these alleged excessive prices.

CHART NO. 2

Chart Showing Relation of  
CANADIAN WHEAT, FLOUR AND BREAD PRICES IN 1929 - 1930

As Compared to the Relation of Their Averages for the 12 Months

Ended June 30, 1929





## II. BREAD PRICES IN CANADA—1929-1930

Two factors are largely responsible for the keen public interest during recent months in the price of bread: one, the spectacular drop in the price of wheat in 1929 and 1930; the other, the existing industrial depression. Complaints have been general throughout the Dominion that bread prices in 1930 were away out of line with wheat prices. Much of the comment seems to imply that this lack of harmony between wheat and bread prices is peculiar to 1930.

In the summer of 1929 Winnipeg wheat prices advanced sharply from a monthly average in June of \$1.18 per bushel to a monthly average in July of \$1.60. Since then the decline has been steady, not "slow and steady," but so rapid as to have reached the low monthly average, in December, 1930, of 56 cents. Why, the question is asked, have not bread prices come down proportionately?

Bread prices did not come down proportionately in the early months of 1930, and that fact doubtless gave rise to most of the protests. But by December, 1930, they came to bear the same relationship to wheat prices as in January, 1929, the same indeed as in the first six months of 1929. Assuming that a bushel or 60 pounds of wheat is used in making 60 pounds of bread—a pound of wheat to a pound of bread—to maintain the same relationship a decline of 65 cents in wheat from the January, 1929, average of \$1.21, to the December, 1930, average of 56 cents, should have been followed by a decline in bread prices of 1·1 cent. That is exactly the decline which did take place in bread prices: in January, 1929, bread sold for 7·7 cents; in December, 1930, the average was 6·6 cents in 69 localities. And this in spite of the fact that flour prices did not reflect the decline in wheat prices to anything like the same extent as bread prices did. Account should also be taken of the fact that in the first half of 1929 bakers were able to take advantage of wheat prices at approximately \$1.21, since that level was maintained throughout the period; whereas in December, 1930, many of them undoubtedly were using flour bought on the basis of the higher prices of wheat in the preceding months.

Another consideration which has an important bearing on the course of bread prices in 1930 is the uncertainty which prevailed in wheat markets after the middle of 1929. Between July, 1929, and December, 1930, the price of wheat dropped from \$1.60 to 56 cents per bushel. One consequence of this drastic change was to induce a feeling of uncertainty among bakers as well as millers and grain dealers. They naturally viewed the lower price as a temporary condition and were loath to commit themselves to price reductions the basis of which might on short notice be seriously upset.

These price movements are illustrated by Chart No. 2 (1), in which the average prices of all three commodities are represented as starting from a common base. The base period is the year ended June 30, 1929, a period during which there was little variation in the price of bread, flour or wheat.

It should be emphasized that this chart does not imply that the prices of wheat, flour, and bread were in a proper relationship in January, 1929. All that is intended is to appraise the criticism that the price of bread failed in 1930 to follow the course of wheat prices. In order to test this criticism it is necessary to accept as a basis the relations which existed for twelve months prior to July, 1929. The same relationship, as far as wheat and bread are concerned, is shown to exist in December, 1930. It does not necessarily follow that the lag in the price of flour was improper. The whole picture is partial, and can be judged

(1) To obtain the figures on which this chart is based the price of a bushel of wheat has been divided by 60, approximately the number of pounds of bread made from a bushel of wheat; the price of a barrel of flour has been divided by 270, the average number of pounds of bread made from a barrel of flour. The monthly prices of the three commodities are shown in Appendices A, B, and C.

only after making a comparison of the three groups of prices over a longer period. This comparison is presented in chart No. 5 based on 1923 prices and showing relative prices for the period from 1923 to 1930.

In 1929, wheat advanced from \$1.18 in June to \$1.60 in July. A proportional advance in bread would have been from 7.7 cents in June to 8.3 cents in July. The actual total advance in bread was to 8 cents, and that price was reached in October, 1929. There was a lag in bread prices going up. As might be expected, when wheat started down there was an even greater lag, partly to be explained by the slowness of flour prices to recede, partly by the human tendency in business to postpone price reductions until they are unavoidable. The lag in downward price movements is not peculiar to the bread-baking industry, nor to Canadian business generally, nor to the year 1930. In September, 1930, the price of bread had declined to 7.4 cents; in the subsequent three months the reductions were greater than in the preceding twelve. The impetus given to the decline in bread prices at this stage came from many quarters: continued reductions in wheat and flour, public protests against alleged high bread prices, the widespread newspaper publicity given to these protests, and the chain store and other price competition.

All of this is not to suggest that though December, 1930, bread and wheat prices are in line with the January, 1929, level, there is no ground for complaint about the present price level. In the next section it is proposed to show that in the whole period 1925-30 bread prices were considerably out of line with prices in 1913, and more out of line in 1930 than in 1925. Little protest was made until 1930, partly because the increase in the spread between 1925 and 1930 was gradual, scarcely noticeable from year to year as the chart shows, and partly because times were good. Small advances in price in a period of prosperity seldom arouse public concern. When it is represented that they are accompanied by additional services and improvements in quality, they are readily accepted and even welcomed. It is when hard times come that interest in prices becomes keen and protests are made; and then the whole period is brought under review and comparison made with the lower levels of other years.

### III. BREAD PRICES IN CANADA, 1913-1930

The second main line of criticism of present-day prices of bread usually points to the low prices of pre-war days as evidence that present prices are unduly high. The salient points in the comparison are these:—

—	Wheat <sup>1</sup>	Flour <sup>1</sup>	Bread <sup>1</sup>
Yearly average—	per bushel c.	per barrel \$	per pound c.
1913.....	88	4.87	4.2
1930.....	94	6.41	7.5
December—			
1930.....	56	4.76	6.6

These figures indicate that while both wheat and flour prices were lower at the end of 1930 than in 1913, bread prices were on a substantially higher level. The inference is that influences other than the price of either wheat or flour were at work, an inference which is justified by a more detailed study of the whole course of the three groups of prices.

As to the explanation of the higher range of bread prices, there is unquestioned justification for the claim that the higher level of wholesale and retail prices generally is partly responsible for the discrepancy between 1913 and 1930. Prices generally are higher. The baker's dollar is as badly off in many respects as the so-called "consumer's dollar"; it will not buy, in 1930 or 1931, as many pounds of *some* of his raw materials, though of some it will, nor will it go so far in meeting many of the other expenses, as it did in 1913. A comparison of bread prices with other retail and wholesale prices shows that bread prices have not declined as rapidly as the others since 1920, when all three reached their highest level; but it also shows that other price levels are still high compared with 1913. Taking 1913 prices as equal to 100, the record shows:—

PRICES INDEXES, CANADA, 1913-1930

—	Bread Prices	All Food Prices Retail	Retail Prices	Fuel and Light	Wholesale Prices
1913.....	100	100	100	100	100
1920—December.....	212	202	190	200	217
1929—December.....	188	161	160	157	150
1930—December.....	157	140	148	156	122

Apart from this change in the general price level the main line of explanation of the divergence between 1913 and 1930 bread prices is to be found in factors other than wheat and flour. The course of bread prices between 1913 and 1930 is shown in the frontispiece. The figures on which this chart is based are to be found in Appendices A, B, and C.

<sup>1</sup> Throughout this report, unless otherwise stated, quotations of prices of wheat, flour and bread in Canada are based on the following:—

*Wheat*—No. 1 Manitoba Northern, Fort William and Port Arthur basis (wholesale), monthly averages, per bushel—Dominion Bureau of Statistics.

*Flour*—Manitoba 2nd Patent, car lots, delivered Montreal rate points, monthly averages, per two 98 lb. jute bags—Dominion Bureau of Statistics.

*Bread*—White bread, retail prices at the beginning of each month, per pound in 69 localities—Department of Labour. (The number of localities was 56 in 1913; by 1925 it reached the present number of 69.)

CHART NO. 3

## Chart Showing

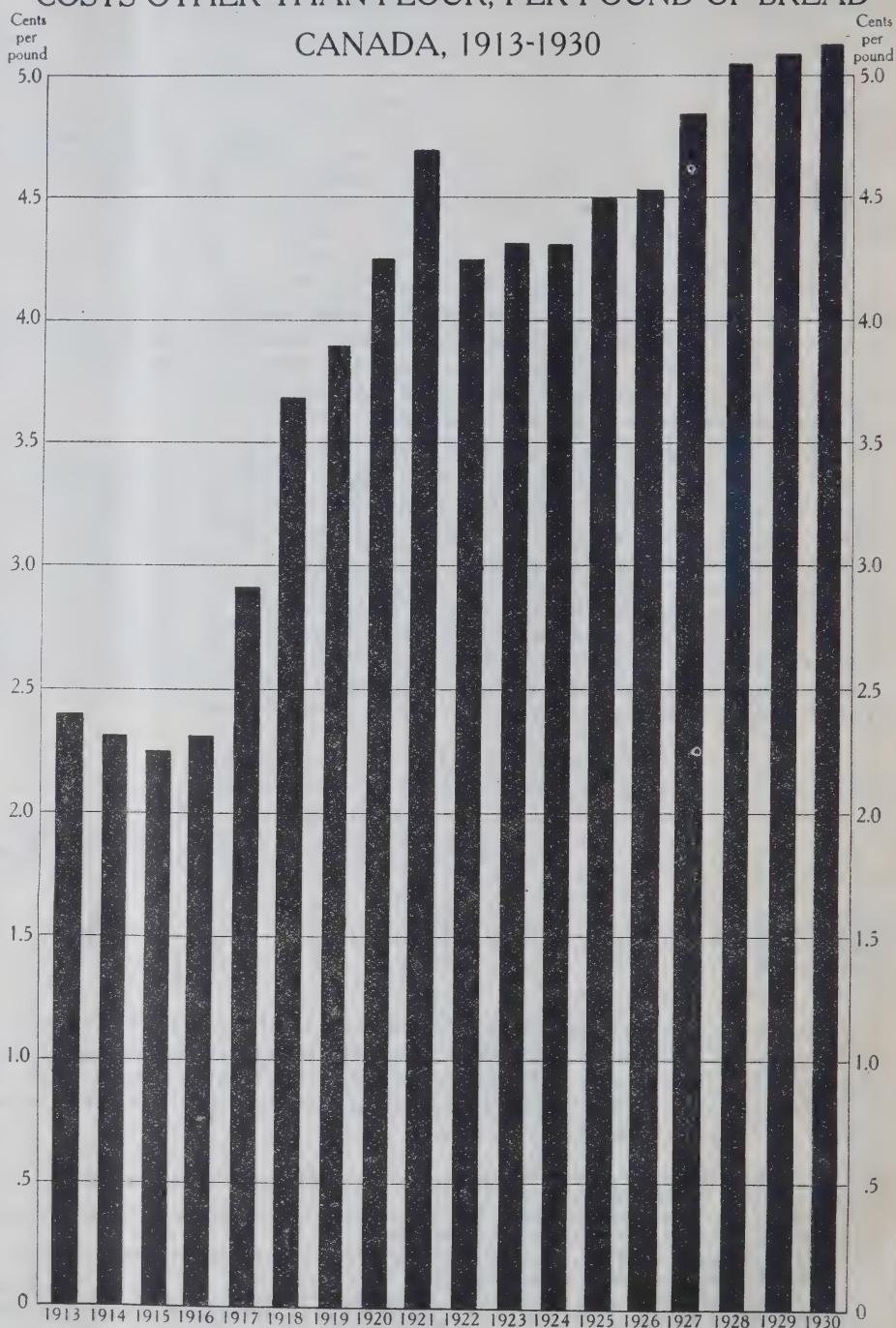
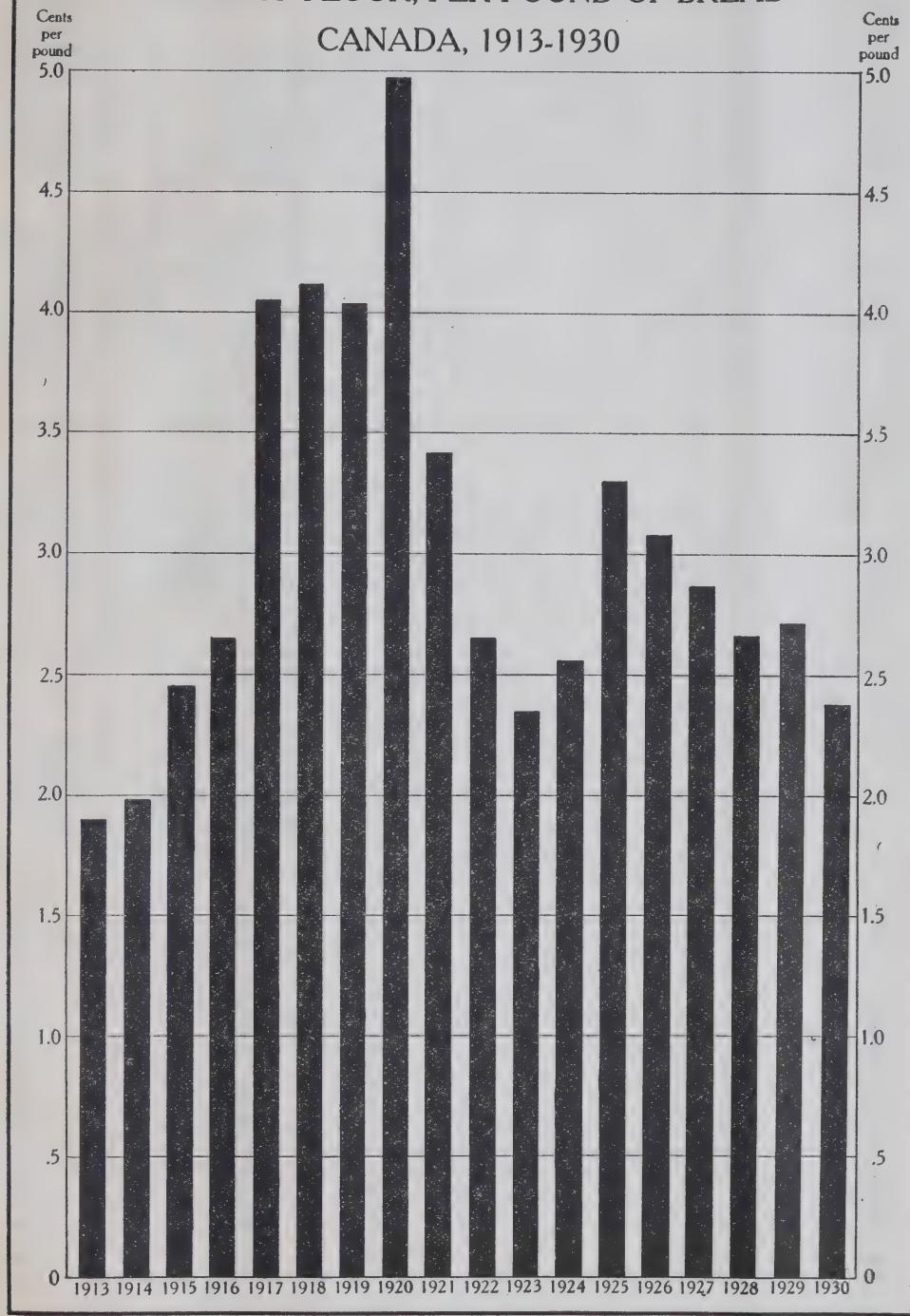
COSTS OTHER THAN FLOUR, PER POUND OF BREAD  
CANADA, 1913-1930

CHART NO. 4

**Chart Showing**  
**COSTS OF FLOUR, PER POUND OF BREAD**  
**CANADA, 1913-1930**



Department of Labour, Ottawa, Canada

The chart shows that the average of the first half of 1930 was typical of the averages of the five preceding years 1925-1929. Similarly records earlier than 1913 show that the 1913 price of bread represented approximately the level at which prices had remained for a number of years prior to that date. The comparison, therefore, in both instances, is of conditions which existed over a number of years.

The difference in flour prices, which are the medium through which the influence of wheat makes itself felt, does not account, then, for the difference in the two levels of bread prices, the one in 1913 and the other in the years 1925-1930. The average price of flour for the latter six years was \$7.65, an increase of \$2.78 over the 1913 average of \$4.87, or almost exactly enough to account for an increase of one cent a pound in the price of bread, assuming a yield of 270 pounds from a barrel of flour.

The fact that something other than flour is responsible for most of the increase is shown clearly by a statement of the spread between the wholesale cost of the flour used in making a pound of bread and the retail price of bread: in 1913 the spread was 2.3 cents; in 1930 it was 5.1 cents. In other words, even if the baker had got his flour for nothing in 1930 he would still have charged 5.1 cents a pound for his bread; in 1913 he would have charged only 2.3 cents. The difference in the spread from year to year is shown in Chart No. 3.

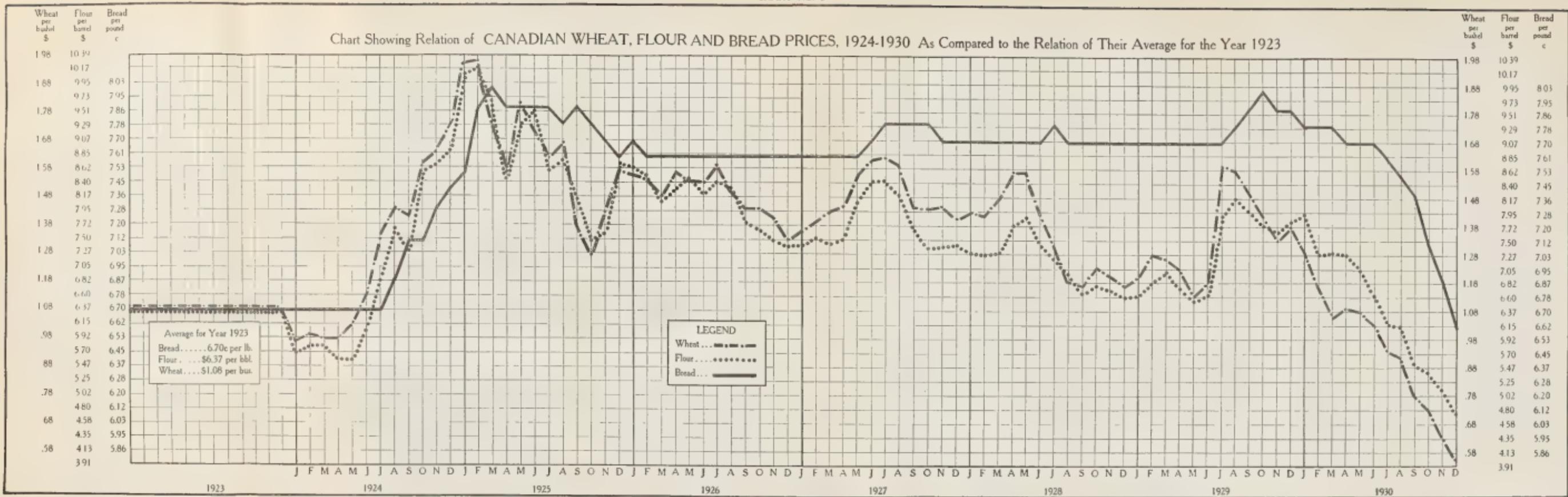
Changes in flour costs during the same period are illustrated by Chart No. 4 (1).

Not only is the spread between flour and bread prices seen to be greater in 1930 than in 1913 (5.13 cents against 2.30 cents), but in 1930 it is greater than in 1922 or in any intervening year. It comes, as a matter of fact, as the climax of a series of regular increases, year by year, since 1922. Except for the abnormally high years 1920 and 1921, the spread has increased regularly from year to year from the low level of the period 1913-1916. A great part

(1) The figures from which Charts 4 and 5 have been made are as follows, the cost of flour being based on 270 lbs. of bread from a barrel of flour (196 lbs.):—

	FLOUR	FLOUR	BREAD	Spread between flour cost and retail bread price
	Cost of 2nd Patent per barrel	Cost of amount used in making 1 lb. bread	Retail price per lb.	
1913.....	\$ 4 87	1.80	4.2	2.40
1914.....	5 36	1.99	4.3	2.31
1915.....	6 61	2.45	4.7	2.25
1916.....	7 22	2.67	5.0	2.33
1917.....	10 98	4.07	7.0	2.93
1918.....	11 16	4.13	7.8	3.67
1919.....	10 92	4.04	7.9	3.86
1920.....	13 34	4.94	9.3	4.36
1921.....	9 22	3.41	8.1	4.69
1922.....	7 15	2.65	6.9	4.25
1923.....	6 37	2.36	6.7	4.34
1924.....	6 90	2.56	6.9	4.34
1925.....	8 92	3.30	7.8	4.50
1926.....	8 32	3.08	7.6	4.52
1927.....	7 74	2.87	7.7	4.83
1928.....	7 17	2.66	7.7	5.04
1929.....	7 33	2.71	7.8	5.09
1930.....	6 41	2.37	7.5	5.13

CHART NO. 5





of the advance in the spread came between 1916 and 1918, from 2.33 cents per pound to 3.67 cents. Flour advanced at the same time from \$7.22 per barrel to \$11.16. But whereas flour had receded, by 1922, to \$7.15, just below its 1916 level, the spread between flour and bread was nearly 2 cents higher in 1922 than in 1916, and the following year it went slightly higher.

It should be emphasized that the term "spread" does not mean "net profits." It represents the difference between the baker's cost of flour and the retail selling price of his bread, and therefore includes all such necessary costs as other ingredients, baking, delivery and sale, administration expenses, as well as net profits. The influence of these different factors on price will be dealt with further in the section on bread costs in Canada.

In the preceding section it was intimated that the price of bread during 1930 had shown a decline quite as much as was called for by the drop in the price of wheat during that year. At the same time attention was drawn to the consideration that this did not imply that bread prices in 1930 were on a proper basis as compared with the price of wheat. The importance of this consideration is thrown into relief by the accompanying chart (No. 5) which depicts the relation of wheat, flour and bread prices between 1923 and 1930. In the chart attached to the preceding section (No. 2) the relationship of wheat, flour and bread prices for the twelve months preceding July, 1929, was taken as a basis for comparing prices in later months. In the present chart a similar relationship is shown between these three groups of prices during the year 1923. This year is chosen because it was a year of comparatively little change in the prices of any of the three commodities.

When comparison was made of the relation of bread prices to wheat prices as between December, 1930, and January, 1929, it was indicated that bread prices had fallen relatively as much as wheat prices, but that there was a considerable lag in the price of flour. It appears, on the other hand, when the comparison is made between the end of 1930 and the year 1923, that while flour has followed wheat quite closely there has been a marked lag in the reduction of the price of bread. The inference is that while bread prices followed wheat prices in their decline during 1930, at the opening of 1930 bread prices were decidedly out of line with wheat prices as compared with the relationship which existed in 1923. Chart No. 5 shows that between January, 1925, and June, 1930, while wheat and flour prices fluctuated freely, bread prices were maintained at a high level which was generally unchanged. The interval between these dates, as will appear later, constitutes a period in which occurred the most striking development of the bread industry in recent years, namely, the acquisition of a large measure of control in the bread-baking industry by a few flour milling companies.

#### IV. BREAD PRICES BY PROVINCES AND CITIES

The price of bread thus far quoted is an average retail price for the Dominion. The following table<sup>1</sup> shows, for a group of years since 1913, how retail prices of bread have varied as between the provinces, figures for 1930 being given in more detail than for the other years:

TABLE 1.—RETAIL PRICES OF BREAD BY PROVINCES<sup>(1)</sup>  
(Cents per Pound)

	1913	1920	1925	1929	1930 first (9 mos.)	1930 Oct.	1930 Nov.	1930 Dec.
	c.	c.	c.	c.	c.	c.	c.	c.
Nova Scotia.....	4.8	9.7	8.4	8.1	8.2	7.4	6.9	7.0
New Brunswick.....	4.3	10.4	8.9	8.6	8.6	8.0	7.8	7.5
Prince Edward Island.....	3.8	9.0	7.4	7.4	7.4	7.4	7.4	7.3
Quebec.....	3.7	8.5	6.8	6.5	6.3	6.1	5.8	5.5
Ontario.....	3.8	9.0	7.3	7.4	7.4	6.8	6.7	6.3
Manitoba.....	4.4	8.7	7.5	7.0	6.8	6.7	6.3	5.9
Saskatchewan.....	4.5	9.2	8.4	8.2	7.5	6.7	6.6	6.4
Alberta.....	5.2	9.7	8.8	8.7	8.4	7.2	7.2	7.2
British Columbia.....	5.1	10.4	9.1	9.5	9.4	8.7	8.2	8.1
Dominion average.....	4.2	9.3	7.8	7.8	7.7	7.1	6.9	6.6

From this table it will be seen that the four provinces at the extremities of the Dominion have practically always been above the average (Nova Scotia, New Brunswick, Alberta and British Columbia). Nova Scotia came down to the average in one period, November, 1930. Four other provinces have as consistently been below the average (Prince Edward Island, Quebec, Ontario and Manitoba). Two exceptions are noted: Prince Edward Island was high in November and December, 1930, and Manitoba was just above the average in 1913. Saskatchewan, the remaining province, has been slightly above the average in three of the periods and slightly below it in five, the five including 1920 and all four of the 1930 periods.

It is striking to observe that the difference between the highest and lowest average in the later years is much wider than in the earlier. This is shown clearly as follows:

TABLE 2.—RANGE OF BREAD PRICES BY PROVINCES  
(Cents per pound)

	1913	1920	1925	1929	1930 first (9 mos.)	1930 Oct.	1930 Nov.	1930 Dec.
	c.	c.	c.	c.	c.	c.	c.	c.
Highest province.....	5.2	10.4	9.1	9.5	9.4	8.7	8.2	8.1
Lowest province.....	3.7	8.5	6.8	6.5	6.3	6.1	5.8	5.5
Difference.....	1.5	1.9	2.3	3.0	3.1	2.6	2.4	2.6

<sup>(1)</sup> This table is based on returns received by the Department of Labour from correspondents of the "Labour Gazette" in 69 localities, divided by provinces as follows:

Nova Scotia.....	6	Manitoba.....	2
New Brunswick.....	4	Saskatchewan.....	4
Prince Edward Island.....	1	Alberta.....	5
Quebec.....	9	British Columbia.....	8
Ontario.....	30		

69

The names of the towns and cities represented are to be found in the table of prices in Appendix J. In 1913 the list included 56 localities; the number was gradually increased until 1925, when it reached the present number of 69.

CHART NO. 6

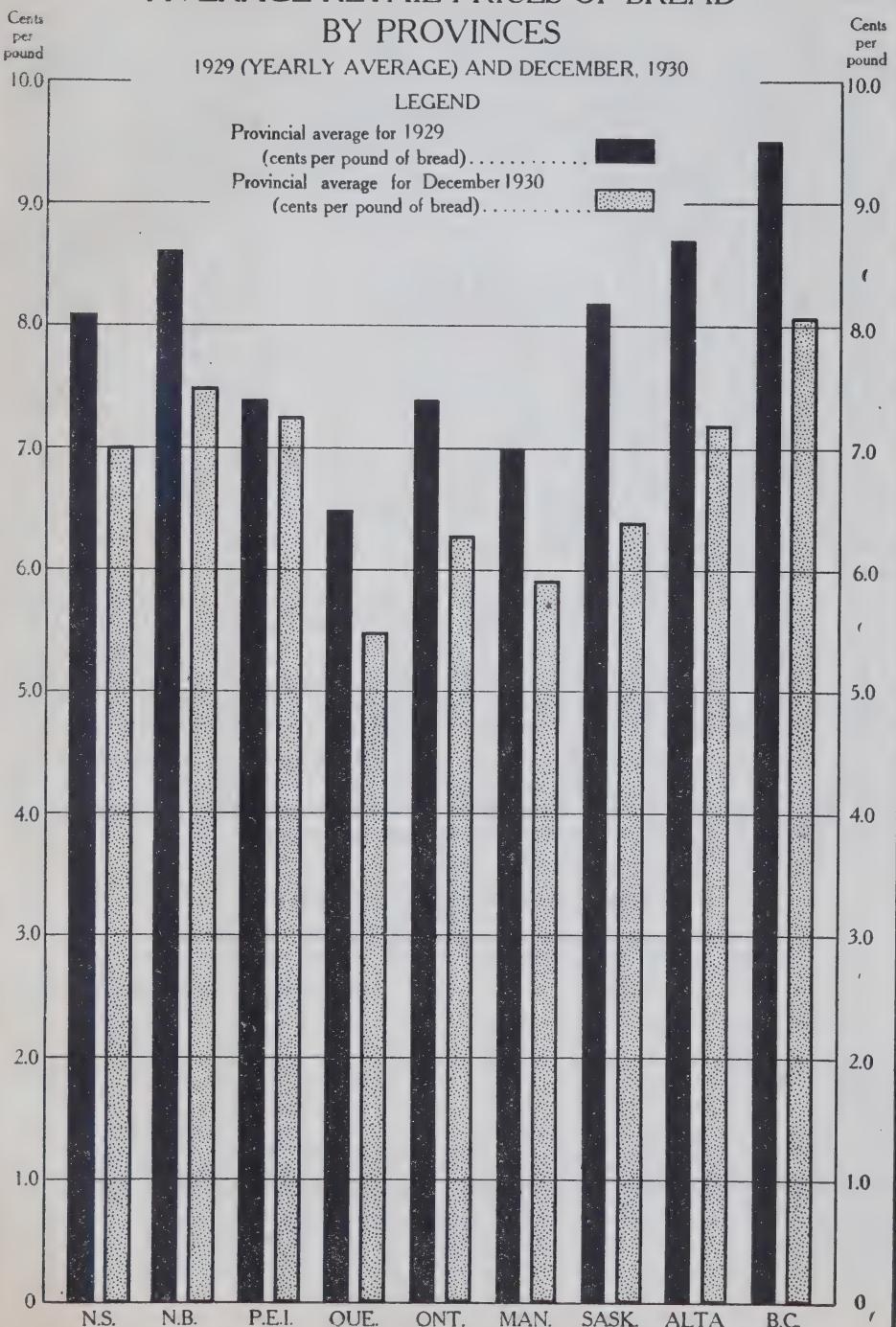
## Chart Showing

AVERAGE RETAIL PRICES OF BREAD  
BY PROVINCES

1929 (YEARLY AVERAGE) AND DECEMBER, 1930

## LEGEND

- Provincial average for 1929  
(cents per pound of bread).....
- Provincial average for December 1930  
(cents per pound of bread).....



British Columbia bread prices were the highest in the Dominion in each of the above periods, with the exception of 1913. Even in 1913 the British Columbia average was 5·1c., one point below the highest, namely, Alberta. New Brunswick was low in 1913, only a point above the Dominion average, but in almost every other period recorded above it has come next to the highest or equalled it.

At the other extreme, Quebec prices are shown to be consistently the lowest. Manitoba prices, though slightly above the Dominion average in 1913, have come next to the lowest in six of the other seven periods, the exception being in 1925 when it just missed this standing. In one year not recorded above (1924) the Manitoba average was lower than Quebec by one point, and in another year (1923) both provinces were equally low, at 6 cents. These details can be seen in the table of yearly averages included in Appendix J. It should be recalled that the Department of Labour quotations from Manitoba come from only two cities, Winnipeg and Brandon. The tendency of prices in the prairie provinces appears to have been to fall relatively to prices in other parts of the Dominion as the prairie provinces have increased in population, with consequent greater diversity of industries and the natural tendency away from pioneer conditions in both wholesale and retail trade. No doubt this tendency is due in part also to the growth of the flour milling industry in the West. The smaller size of the loaf prevailing in British Columbia and the prairie provinces may also add to the cost and to the price of the loaf in western Canada.

Graphically summarized, the comparison of bread prices as between different provinces in 1929 and 1930 is shown in Chart No. 6. This chart shows at the same time, by a comparison of the 1929 average of each province with the average for December, 1930, the extent to which bread prices have been reduced in recent months.

A comparison of these prices with the Department of Labour's average cost of staple foods by provinces shows much the same results: British Columbia's prices are regularly highest, while Quebec and Prince Edward Island are low. The most notable exception is, however, that New Brunswick prices of *staple foods* are almost uniformly low compared with the other provinces, whereas New Brunswick *bread* prices are regularly next to the highest.

An examination of bread prices in the 69 localities represented in the Department of Labour record shows considerable variation in the extent to which prices declined in the latter half of 1930 as compared with the early part of 1929. A complete record of these prices for January, 1929 and December, 1930, is shown in the following table:

TABLE 3—RETAIL PRICES OF BREAD  
(Cents per Pound)  
In 69 Canadian Localities: January, 1929, and December, 1930<sup>(1)</sup>

	January, 1929	December, 1930	Reduction
Sydney, N.S.	c. 8·0	c. 7·3	0·7
New Glasgow	8·0	6·7	1·3
Amherst	8·0	7·3	0·7
Halifax	8·0	6·7	1·3
Windsor	8·3	6·7-7·3	1·6-1·0
Tufts	8·0	6·7	1·3
Charlottetown, P.E.I.	7·4	7·3	0·1
Moncton, N.B.	8·7	8·0	0·7
St. John	8·7	7·3	1·4
Fredericton	8·7	7·3	1·4
Bathurst	8·7	7·3	1·4

TABLE 3—RETAIL PRICES OF BREAD—*Conc.*  
(Cents per Pound)

In 69 Canadian Localities: January, 1929, and December, 1930<sup>(1)</sup>.

	January, 1929	December, 1930	Reduction
	c.	c.	c.
Quebec, Que.	7.5	6.0	1.5
Three Rivers	6.0	5.3	0.7
Sherbrooke	6.0-6.7	5.6	0.4-1.1
Sorel	6.0	6.0	0.0
St. Hyacinthe	5.0	4.3	0.7
St. John's	5.3-6.7	4.7-6.0	0.6-0.7
Theftord Mines	6.7	5.7	1.0
Montreal	5.3-8.0	4.7-6.7	0.6-1.3
Hull	6.0-8.0	4.7-6.7	1.3-1.3
Ottawa, Ont.	7.3-8.0	5.3-7.3	2.0-0.7
Brockville	6.7	6.0	0.7
Kingston	6.7	6.0	0.7
Bellefontaine	6.0-6.7	5.7	0.3-1.0
Peterborough	7.3	6.0	1.3
Oshawa	7.3	6.0-6.7	1.3-0.6
Orillia	6.7	6.0	0.7
Toronto	6.7-7.3	6.7-7.3	0.0
Niagara Falls	7.3	6.7	0.6
St. Catharines	7.3	6.7	0.6
Hamilton	7.3	5.3	2.0
Brantford	6.7-8.0	4.7-7.3	2.0-0.7
Galt	7.3	6.0	1.3
Guelph	7.3	6.0	1.3
Kitchener	6.7	6.0	0.7
Woodstock	6.7-7.3	5.3-6.0	1.4-1.3
Stratford	7.3	6.0	1.3
London	6.7-7.3	6.0-6.7	0.7-0.6
St. Thomas	7.3-8.7	5.3-6.7	2.0-2.0
Chatham	6.7	5.3	1.4
Windsor	8.0-9.3	6.7-7.3	1.3-2.0
Sarnia	7.3-8.0	5.3	2.0-2.7
Owen Sound	6.7-7.3	6.0-6.7	0.7-0.6
North Bay	7.3	6.7	0.6
Sudbury	8.0-8.7	7.3-8.0	0.7-0.7
Cobalt	8.3	6.7	1.6
Timmins	8.3	7.3	1.0
Sault Ste. Marie	8.0	6.7	1.3
Port Arthur	6.0	6.7	0.7(Inc.)
Fort William	6.0	6.7	0.7(Inc.)
Winnipeg, Man.	6.4-7.0	5.6-6.0	0.8-1.0
Brandon	6.3-7.0	5.6-6.2	0.7-0.8
Regina, Sask.	8.0-8.4	5.0-6.7	3.0-1.7
Prince Albert	8.0	6.7	1.3
Saskatoon	8.0	6.7	1.3
Moose Jaw	8.0	6.4	1.6
Medicine Hat, Alta.	8.9	6.7-7.4	2.2-1.5
Drumheller	8.9	7.4	1.5
Edmonton	8.0	6.7	1.3
Calgary	8.0	6.6	1.4
Lethbridge	8.0-10.0	8.0-8.3	0.0-1.7
Fernie, B.C.	10.0	8.3	1.7
Nelson	10.0	8.3	1.7
Trail	9.3	8.3	1.0
New Westminster	8.3-9.5	6.9	1.4-2.6
Vancouver	8.3-9.5	6.9	1.4-2.6
Victoria	10.0	8.3	1.7
Nanaimo	8.9	8.3	0.6
Prince Rupert	10.0	9.1	0.9

(1) Bread prices are published monthly in the "Labour Gazette". The figures are secured by the "Labour Gazette" correspondents and represent the price of representative bakers in each city for plain white bread, delivered. Prices of both wrapped and unwrapped bread are included, and where there is a difference both are published. In those cities where the ticket price differs from the price per single loaf the former only is given. The figures are later checked with the Bureau of Statistics averages for the same localities, which averages are based on quotations for the single loaf, received usually from a number of bakers as well as grocers of different types.

The Dominion averages for January, 1929, and December, 1930, were, as already noted, 7·7c. and 6·6c. respectively, a reduction of 1·1c. per pound. This reduction has been shown to correspond with the reduction in wheat prices in the same period. According to the above record, in 45 out of the 69 localities, the price of bread dropped one cent per pound or more. In two cities they increased (Fort William and Port Arthur, both from 6·0c. to 6·7c.). In the earlier period, however, the price in these cities was 6c., the lowest in the Dominion except for three cities in the province of Quebec. In two cities they showed no difference (Sorel, 6·0c., and Toronto, 6·7c. to 7·3c.); while, in the remaining 20 cities there were declines amounting to less than one cent per pound. Four of these are in the Maritime Provinces; three are in Quebec, where prices had already been low; 10 were in Ontario; 1 in Manitoba; none in Saskatchewan or Alberta; and 2 in British Columbia.

## V. ANALYSIS OF SAMPLES OF CANADIAN BREAD

The foregoing references to prices of bread might appropriately be supplemented by a brief consideration of the content of the Canadian loaf. The formulas used for white bread by 158 Canadian bakeries (71 mill-controlled bakeries and 87 independents) have been examined with the view of ascertaining the proportions in which the different ingredients have been generally used. The figures given by the bakers have been reduced in each case to one hundred pounds of dough, and an average has been taken of the quantities of each of the ingredients. The resulting composite formula is shown in the tabulation below:—

TABLE 4—FORMULAS USED BY CANADIAN BAKERS, JUNE, 1930<sup>(1)</sup>

Ingredients	Mill-controlled bakeries (71)	Independent bakeries (87)	All bakeries (158)
	(lbs.)	(lbs.)	(lbs.)
Flour.....	58.8	60.0	59.3
Salt.....	1.1	1.1	1.1
Sugar.....	1.1	1.0	1.1
Shortening.....	1.2	1.1	1.1
Milk or milk powder.....	1.5	0.9	1.3
Malt.....	0.6	0.6	0.5
Yeast.....	0.8	0.8	0.8
Yeast food.....	0.2	0.1	0.2
Water.....	34.5	34.4	34.6
Other.....	0.2	—	—
	100.0	100.0	100.0

<sup>(1)</sup> A formula in common use in 1916 is quoted in a special article in "The Labour Gazette" of July, 1916, at page 1404. This formula, on the basis of one hundred pounds of dough, works out as follows: flour 63·2, salt ·9, sugar ·6, shortening 1·0, yeast ·5, malt extract ·3, water 33·5 pounds.

It should be emphasized that the above figures are averages and do not show the variations in quantities of ingredients used by different bakeries. No distinction has been made as between the different grades of flour employed. Nor has any distinction been made, in the returns as received, between such different forms of milk as milk powder, skim milk and whole milk.

The above figures relate altogether to the standard white loaf. Formulas of other types of bread, some plainer, some more fancy, than these have also been received. The plainer loaf shows almost exactly the same proportion of flour (59·1 pounds) as the standard, but a higher proportion of water (36·1 pounds). The other ingredients average 4·7 pounds compared with 6·1 pounds in the standard loaf. The more fancy loaf, selling at a slightly higher price than the standard, contains slightly less flour, and of its moisture content more than half is represented by milk.

In addition to securing formulas from bakers throughout the Dominion, a chemical analysis of seventeen samples of bread was made under the direction of the Dominion Analyst. These samples were all bought in the City of Ottawa on the same day, Monday, October 13, 1930, at prices varying from 7 cents to 12 cents per 24-ounce loaf. The comment of the analyst on these samples was that they did not show a great deal of difference in their nutritive value, and that all were palatable. In 1925 similar results as to the absence of difference in nutritive value between lower and higher price breads were found by the Dominion Analyst in an examination of samples of bread in connection with an inquiry into an alleged combine of bakers in the City of Montreal.

The results of the analysis in October, 1930, are presented in the following statement:—

TABLE 5.—REPORT OF DOMINION ANALYST ON SAMPLES

	Sample No. 1	Sample No. 2	Sample No. 3	Sample No. 4	Sample No. 5	Sample No. 6	Sample No. 7	Sample No. 8
Retail selling price.....	12c.	12c.	12c.	12c.	11c.	10c.	10c.	10c.
Appearance of loaf.....	Good	Good	Fairly good	Fairly good	Poor, shrunken	Good	Poor, somewhat shrunken	Fair, lightly baked
Texture of crumb.....	Good, few large gas holes	Fairly good, few large gas holes	Fair, some irregular gas holes	Good	Very good	Very good	Poor, very large gas holes	Fairly good, some large gas holes
Colour of crumb.....	Good	Very good	Good	Good	Very good	Very good	Very good	Very good
Sourness.....	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Weight on receipt..... oz.	23½	23½	24½	23	24½	23½	24½	24
Moisture..... p.c.	42.34	40.38	37.44	41.14	41.16	40.15	42.36	32.22
Mineral matter, ash—								
As purchased..... "	1.76	1.77	1.92	1.71	1.96	1.80	1.62	1.35
Dry basis..... "	3.05	2.97	3.07	2.90	3.33	3.00	2.81	1.99
Ether extract, fat—								
As purchased..... "	0.51	1.22	1.98	1.32	1.35	1.53	2.61	0.92
Dry basis..... "	0.88	2.05	3.16	2.24	2.29	2.56	4.53	1.35
Protein, N x 57—								
As purchased..... "	8.70	8.10	8.38	8.45	8.26	9.70	8.02	10.18
Dry basis..... "	15.09	13.59	13.40	14.35	14.04	16.21	13.92	15.02
N-Free extract carbo-hydrates (diff.)—								
As purchased..... "	46.67	48.53	50.28	47.38	47.27	46.82	45.39	55.33
Dry basis..... "	80.98	81.39	80.37	80.51	80.34	78.23	78.74	81.64
Calories per lb., nutritive value—								
As purchased.....	1,051	1,104	1,175	1,095	1,090	1,117	1,103	1,257
Dry basis.....	1,823	1,852	1,878	1,861	1,852	1,865	1,914	1,855

"REMARKS.—These results show that there is not a great deal of difference in the nutritive value of the various samples purchased locally. The 'dry basis' figures are more readily comparable than the 'as received' figures; eliminating the somewhat variable water content. All the samples are palatable."

## OF WHITE BREAD SOLD IN OTTAWA, OCTOBER 13, 1930

Sample No. 9	Sample No. 10	Sample No. 11	Sample No. 12	Sample No. 13	Sample No. 14	Sample No. 15	Sample No. 16	Sample No. 17	
10c.	10c.	10c.	10c.	9c.	8c.	8c.	8c.	7c.	Retail selling price.
Fairly good	Good, lightly baked	Fair, lightly baked	Poor, shrunken crust	Poor	Poor, shrunken	Fairly good, somewhat lightly baked	Fairly good, somewhat lightly baked	Fair, lightly baked	Appearance of loaf.
Good	Fair, some irregular gas holes	Good	Fair, some large gas holes	Fair, somewhat irregular	Fair, some large gas holes	Good	Fair, coarse	Good	Texture of crumb.
Fair	Very good	Good	Good	Fairly good	Very good	Fairly good	Fairly good	Very good	Colour of crumb.
Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Sourness.
23 $\frac{3}{4}$	24 $\frac{1}{8}$	23 $\frac{1}{4}$	24 $\frac{1}{2}$	23 $\frac{3}{4}$	23 $\frac{1}{4}$	24 $\frac{1}{4}$	23 $\frac{3}{4}$	25 $\frac{3}{8}$	oz. Weight on receipt.
34.73	42.40	40.83	40.21	34.80	42.54	40.51	40.06	38.60	p.c. Moisture.
1.82	1.75	1.70	1.54	1.53	1.46	1.59	1.45	1.15	Mineral matter, ash— p.c. As purchased.
2.79	3.04	2.87	2.58	2.35	2.54	2.67	2.42	1.87	" Dry basis.
1.73	0.40	0.45	0.70	1.04	0.32	0.82	1.11	0.91	Ether extract, fat— " As purchased.
2.65	0.70	0.76	1.17	1.60	0.56	1.38	1.85	1.48	" Dry basis.
9.70	8.38	8.54	8.98	8.70	8.82	8.74	9.74	9.98	Protein, N x 57— " As purchased.
14.86	14.55	14.43	15.02	13.35	15.35	14.69	16.25	16.25	" Dry basis.
52.02	47.07	48.48	48.57	53.93	46.86	48.34	47.64	49.36	N-Free extract carbohydrates (diff.)— p.c. As purchased
79.70	81.71	81.94	81.23	82.70	81.55	81.26	79.48	80.40	" Dry basis.
1,221	1,048	1,084	1,101	1,209	1,049	1,097	1,115	1,142	Calories per lb., nutritive value— As purchased.
1,871	1,820	1,832	1,841	1,854	1,825	1,844	1,860	1,860	Dry basis.

Examination of this table brings out some features that would not be recognized at a glance. Of the seventeen samples analyzed, nine weighed less than twenty-four ounces; as it happens the seven-cent loaf was the highest in weight, while one of the twelve-cent loaves was the lowest. As for nutritive value measured in calories, the lowest-price loaf exceeded that of some of the highest-price loaves; both ten and twelve-cent loaves are found at the head as well as at the foot of the list. Using the percentage of fat as a criterion, the seven-cent loaf is just below the middle; one twelve-cent loaf is second from the top and one is fourth from the bottom. These facts throw into relief the comment of the analyst that the samples did not show a great deal of difference in their nutritive value. It is evident that high price is not a guarantee either of high nutritive value in terms of calories per pound, or of a high percentage of fats in the loaf.

For purposes of comparison the report on the analysis of Montreal samples in December, 1925, is here reproduced:—

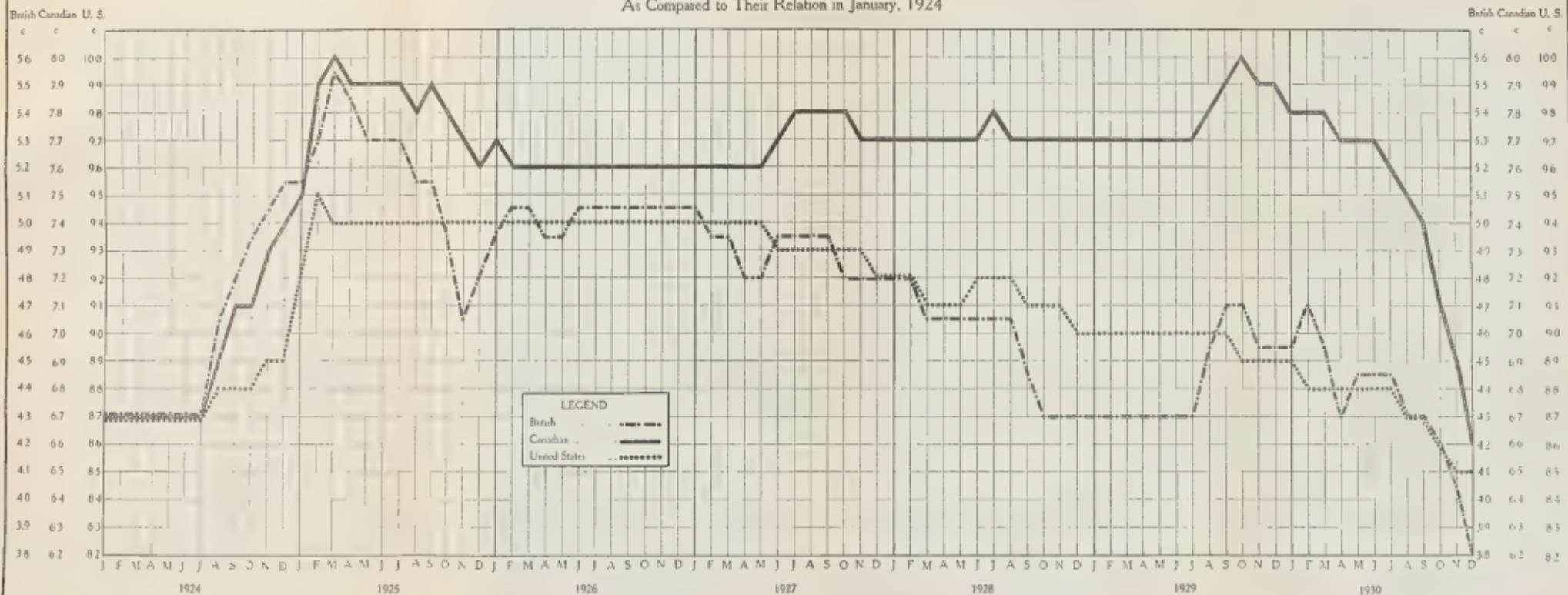
TABLE 6.—REPORT OF DOMINION ANALYST ON SAMPLES OF WHITE BREAD SOLD IN MONTREAL, DECEMBER, 1925

—	Sample No. 1	Sample No. 2	Sample No. 3	Sample No. 4	Sample No. 5	Sample No. 6	Sample No. 7
Retail selling price.....	12c.	12c.	10-11c.	9-10c.	9c.	9c.	8c.
Appearance of loaf.....	Good	Fair	Fair	Fair	Poor	Fair	Fair
Texture of crumb.....	Light, fine grain	Light, fine grain	Slightly coarse, gas holes	Light, fine grain	Light, fine grain irregular gas holes	Slightly heavy, gas holes	Light, fine grain
Colour of crumb.....	Fair	Fair	Fair	Fair	Fair	Fair	Fair
Sourness.....	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Weight on receipt..... oz.	24 $\frac{1}{2}$	23 $\frac{5}{8}$	20 $\frac{3}{8}$	22 $\frac{1}{4}$	22 $\frac{1}{2}$	25	22 $\frac{1}{4}$
Moisture..... %	33.61	33.36	28.97	31.44	29.83	32.30	33.78
Mineral matter, ash—							
As purchased..... %	2.43	1.49	3.32	1.40	1.56	1.37	1.49
Dry basis..... %	3.66	2.22	4.67	2.01	2.22	2.06	2.24
Ether extract, fat—							
As purchased..... %	2.63	1.73	1.81	1.43	2.61	1.48	1.44
Dry basis..... %	3.98	2.60	2.56	2.08	3.74	2.24	2.18
Protein, N x 57—							
As purchased..... %	9.06	9.34	10.12	9.23	9.80	9.91	10.80
Dry basis..... %	13.68	14.03	14.25	13.45	13.96	14.94	16.30
N-Free extract carbohydrates (diff.)—							
As purchased..... %	52.27	54.08	55.78	56.50	56.20	54.94	52.49
Dry basis..... %	78.78	81.15	78.52	82.46	80.08	80.76	79.28
Calories per lb., nutritive value—			*				
As purchased.....	1,257	1,253	1,321	1,279	1,337	1,268	1,237
Dry basis.....	1,888	1,879	1,834	1,870	1,908	1,877	1,870

"CONCLUSIONS: These analyses indicate that there is no practical difference in nutritive value in the samples and all are palatable to taste. It will be noted that the majority of the samples as received weighed less than 1 $\frac{1}{2}$  lbs. per loaf. Only two of the samples were wrapped."

CHART NO. 7

Chart Showing Relation of  
CANADIAN, BRITISH AND UNITED STATES RETAIL BREAD PRICES, 1924-1930  
As Compared to Their Relation in January, 1924





## VI. BREAD PRICES IN CANADA AND THE UNITED KINGDOM

The difference between retail bread prices in Canada and the United Kingdom can be seen at a glance in the following figures, which include also prices in the United States.

	RETAIL PRICES OF BREAD PER POUND	United	Canada	United	
		Kingdom	c.	Kingdom	c.
1913.....			2.9	4.2	5.6
1930.....			4.3	7.5	8.6

In both periods the American price is seen to be double the British price. In 1913 the Canadian price was practically midway between the other two, closer if anything to the British price; but in 1930 the Canadian price was almost within a cent of the American and more than three cents higher than the British. The record of prices in the intervening years shows that since 1921 Canadian bread prices have more or less forsaken the lower levels of British prices (the difference has increased from 1.4 cent in 1921 to 3.2 cents in 1930) and have followed the higher American trend (the difference was reduced from 2.2 cents in 1920 to 1.1 cent in 1930).

The three levels of prices are shown in the accompanying chart (No. 7), and in the following table, in which the British basis of pence per 4-pound loaf is changed to the cents per pound basis:—

TABLE 7.—COMPARISON OF RETAIL PRICES OF BREAD  
Canada, United Kingdom and United States  
(cents per pound)

—	United Kingdom	Canada	United States	Excess of Canadian over British price	Excess of American over Canadian price
	c.	c.	c.	c.	c.
1913.....	2.9	4.2	5.6	1.3	1.4
1914.....	2.9	4.3	6.3	1.4	2.0
1915.....	3.9	4.7	7.0	0.8	2.3
1916.....	4.4	5.0	7.4	0.6	2.4
1917.....	5.4	7.0	9.2	1.6	2.2
1918.....	4.5	7.8	9.8	3.3	2.0
1919.....	4.6	7.9	10.0	3.3	2.1
1920.....	6.1	9.3	11.5	3.2	2.2
1921.....	6.7	8.1	9.9	1.4	1.8
1922.....	4.9	6.9	8.7	2.0	1.8
1923.....	4.4	6.7	8.7	2.3	2.0
1924.....	4.5	6.9	8.8	2.4	1.9
1925.....	5.1	7.8	9.4	2.7	1.6
1926.....	5.0	7.6	9.4	2.6	1.8
1927.....	4.8	7.7	9.3	2.9	1.6
1928.....	4.5	7.7	9.1	3.2	1.4
1929.....	4.4	7.8	9.0	3.4	1.2
1930.....	4.3	7.5	8.6	3.2	1.1
December, 1930.....	3.8	6.6	8.5	2.8	1.9

An examination of this table discloses that during 1930 the fall in prices was greater in Canada than in the United Kingdom or the United States. The records for the period 1925 to 1929, however, indicate that in the other two countries the decline started much earlier than in Canada. Within this period British prices dropped 7 points and American 4, while Canadian prices showed no decrease.

It is not surprising to find that bread prices in Canada have followed much the same trend as in the United States in recent years; nor that the price in the United States is slightly higher. The trend of wholesale and retail prices generally in the United States is slightly higher than in Canada. The type of bread used in the two countries is much the same, though probably fancy breads are in more general use there than here.

More striking is the difference between Canadian and British bread prices. So much has been said in Canada about the discrepancy between the two, the usual inference being that Canadian bakers must be over-charging, that some useful purpose may be served by a more detailed comparison of the cost and character of the loaves in the two countries.<sup>1</sup>

*General Price Levels.*—A basic consideration in comparing bread prices in Canada and the United Kingdom is the recognition of the difference which has existed for years between the general price levels of the two countries. A current illustration of this difference is seen in the latest "international budget" prepared by the International Labour Office for the purpose of comparing prices in different countries. Grouping retail prices of food, fuel, light and soap as for July, 1930, the report shows that the Canadian level is 30 per cent higher than in the United Kingdom.<sup>2</sup>

*Flour.*—In Canada the grade of flour commonly used by bakers is second patent: some bakers report using a percentage of first patent, others a grade lower than second. For the present comparison, second patent prices (carlots, delivered Montreal rate points) are used as the Canadian basis. The comparative price used for British flour is Straight Run Flour at London, based on quotations published in "The Statist." As to the grade of flour used by English bakers, the Royal Commission on Food Prices in 1925 said:

The kinds of flour used also vary, the flour employed in England normally being "straight-run" flour, which is a mixture of all the different grades of flour produced from the same wheat at different stages of one and the same operation. The flour commonly used by wholesalers in London, however, is "Town Households," and country bakers are said to use largely a flour from grist containing a higher proportion of English wheat.

Assuming that the British baker has been using the flour designated as London Straights and paying the prices quoted, he has been getting a better

<sup>1</sup>In this comparison British bread prices are quoted from "The Ministry of Labour Gazette", which records each month the average retail price of the 4-pound loaf in Great Britain and Northern Ireland. The analysis of costs has been taken from the most recent sources available, the "First Report of the Royal Commission on Food Prices", published in 1925, and the Report of the Linlithgow Committee, issued in 1924. Reference has also been made to the Report on the Marketing of Wheat, Barley and Oats in England and Wales, 1928.

<sup>2</sup>Canadian bread prices are quoted from the retail prices compiled by the Department of Labour, Ottawa, and published monthly in its "Labour Gazette". Further details concerning the basis of these prices are given in the footnote on page 17.

<sup>2</sup>International Labour Review, League of Nations, Geneva, October, 1930, p. 544. In the same table American prices are shown as 43 per cent higher than British.

price per barrel of flour than the Canadian baker. There is a difference, of course, in the yield per barrel, but before commenting on this the comparative prices of the two qualities may be noted as follows:

TABLE 8.—COMPARISON OF WHOLESALE FLOUR PRICES, 1926-1930  
Canada and United Kingdom

	Canadian 2nd Pat. Montreal rate pts. per 196 lbs.	London Straights per 196 lbs.	Excess of Canadian over British price
	\$	\$	\$
1926.....	8 32	8 08	0 24
1927.....	7 74	7 40	0 35
1928.....	7 17	6 63	0 54
1929—			
January.....	6 63	5 95	0 68
February.....	6 90	6 34	0 56
March.....	7 00	6 24	0 76
April.....	6 76	6 04	0 72
May.....	6 59	5 66	0 93
June.....	6 63	5 45	1 18
July.....	7 91	6 70	1 21
August.....	8 18	7 12	1 06
September.....	8 00	7 70	0 30
October.....	7 80	6 41	1 39
November.....	7 70	6 30	1 40
December.....	7 90	6 72	1 20
Average.....	7 33	6 39	0 94
1930—			
January.....	7 95	6 76	1 19
February.....	7 32	6 32	1 00
March.....	7 33	5 78	1 55
April.....	7 30	5 91	1 39
May.....	7 12	5 77	1 35
June.....	6 63	5 93	0 70
July.....	6 23	5 49	0 74
August.....	6 16	5 44	0 72
September.....	5 57	5 06	0 51
October.....	5 43	4 58	0 85
November.....	5 13	4 40	0 73
December.....	4 76	4 13	0 63
Average.....	6 41	5 46	0 95

More complete information on Canadian and British flour prices is given in Appendices B and E. It may be noted here that, on the basis of these averages, the Canadian baker in 1929 and 1930 paid for his Second Patents about \$1.00 a barrel more than the British baker paid for his London Straights. In 1929 the British average is shown as \$6.39, the Canadian as \$7.33.<sup>1</sup> A difference of 90 cents in flour is the equivalent of a third of a cent in the price of a pound of bread, and this amount probably represents the part which higher flour costs play in keeping the Canadian price of bread higher than the British.

It is important to observe, as already suggested, that the yield of bread from the British London Straights is substantially less than from the Canadian Second Patents. According to the British Royal Commission of 1925, the normal yield of bread from a 280-lb. sack of flour is 93·5 four-pound loaves, which is

<sup>1</sup>Probably the actual average was lower in both countries. Our returns from Canadian bakers for 1929 show an average flour cost of \$6.83, the mill-controlled bakeries paying \$6.76, the large independents \$6.85, the smaller independents \$6.98.

the equivalent of approximately 262 pounds from our 196 lb. barrel. The conventional British figure per sack had been 92 loaves. The conventional figure in Canada has been 270 pounds to the barrel, but the returns received in the present inquiry give an average of 275. The chain bakeries report a yield as high as 284 pounds; the independents 269 pounds. One reason for the bigger yield in Canada is that the Canadian flour, made from Canadian hard wheat, can absorb more moisture than the British flour. Another reason is that, in a batch of 100 pounds of dough, the Canadian baker uses, in addition to flour and water, over six pounds of other ingredients, while the British baker uses only a pound and a half. In other words the British loaf contains more flour than the Canadian, but it contains less of the more expensive ingredients.

In speaking of the cost of the flour in a loaf, the British Report of 1925 says:

The chief ingredient in the loaf is, of course, wheat flour, which accounts for approximately two-thirds of the total cost of manufacture and sale of bread.

In contrast to this, our records of Canadian costs show that in 1929 flour represented only a little over one-third of the total costs: 2·43c. out of total costs of 6·78c. per pound of bread. The lower percentage of Canadian flour costs is due not so much to there being less flour used in the Canadian loaf as to the fact that the costs other than flour are so much greater here than in Great Britain. In Canada in 1929 costs other than flour amounted to 4·35c., while in Great Britain in 1923 they amounted to 1·36c.

*Other Ingredients.*—According to the report of the British Royal Commission of 1925, the ingredients used in bread in most districts of the United Kingdom are flour, yeast, yeast foods, rice cones, salt and grease for greasing tins. "Where other ingredients are used," the report adds, "as, for example, milk powder and lard compound or oil, a rather different kind of bread is produced, and the cost of subsidiary ingredients is apt to be high. . . Yeast amounts to more than half the average expenditure upon 'other materials'. . . On the whole we are satisfied that the figure of 3s. 4½d. [per sack of 280 pounds: equivalent to 22c. per pound of bread] for materials other than flour is a not unreasonable indication of the average of the costs incurred over the whole country." The cost of "other ingredients" in the Canadian loaf, according to returns received from 119 bakeries, was 76c. per pound of bread in 1929 and 74c. in 1930, or well over half a cent a pound more than in the United Kingdom.

The view of the 1925 Commission on the use of other ingredients in the British loaf is confirmed by a later British Government report, issued in 1928.<sup>1</sup> It says: "The practice of using sugar, lard, milk, corn flour and other ingredients as commonly observed in America is not extensive in this country." "In the usual process of baking, to each 280-lb. sack of flour there is generally added 140 lb. of water, 2½ lb. of yeast, 3½ lb. salt and probably 1 lb. malt extract or its equivalent of malt flour, with, it may be, some other form of improver." Translating these figures into percentages and putting the result alongside a typical Canadian formula in terms of 100 pounds of dough, the following interesting comparison is seen:

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<sup>1</sup> Report on the Marketing of Wheat, Barley and Oats in England and Wales, 1928.

TABLE 9.—TYPICAL CANADIAN AND BRITISH BREAD FORMULAS  
(per 100 lbs. of dough)

	Canadian <sup>1</sup>	British
	lbs.	lbs.
Flour.....	59.3	65.6
Salt.....	1.1	0.8
Sugar.....	1.1	0.0
Shortening.....	1.1	0.0
Milk.....	1.3	0.0
Malt.....	0.5	0.2
Yeast.....	0.8	0.5
Yeast food.....	0.2	0.0
Water.....	34.6	32.9
Pounds of dough.....	100.0	100.0

Within the past two years, some of the larger Canadian bakeries, heeding the demand for a loaf more after the type of the English loaf and similarly inexpensive, have put out in a few cities a special bread in which they have used lower grade flour than in the first grade bread and reduced quantities of unessential ingredients. One of them estimated the difference between the cost of the ingredients in the two grades as just less than two-thirds of a cent per pound. Even this bread, however, is richer than the average British make, as comparative formulas show. Recent reports state that the bakeries have had a wide sale for the second loaf. The chain stores have followed suit with a second grade. In Ottawa in December, 1930, the large bakeries charged for the plainer  $1\frac{1}{2}$  pound loaf 9 cents wrapped and 8 cents unwrapped, both prices including delivery; the chain stores sold it for 7 cents wrapped, cash and carry. The average British price for the same month, December, 1930, was  $7\frac{1}{2}$  pence for the 4-pound loaf, or approximately 5·62 cents for  $1\frac{1}{2}$  pounds of bread.

*Baking Costs.* Lower baking costs account for another part of the difference between British and Canadian bread prices. The comparison is seen in the following table, British figures being based on the 1925 report, Canadian on the returns received during the present inquiry:

BAKING COSTS—CANADA AND UNITED KINGDOM  
(Per pound of bread)

	Canada 1929	United Kingdom 1925
	cents	cents
Labour baking costs.....	0.70	0.40
Wrappers and wrapping.....	0.16	
Other baking costs.....	0.31	0.24
Total baking costs.....	1.17	0.64

In other words the Canadian public pays an additional half cent a pound because baking costs are higher here than in the British Isles. That bakery wages are lower in the Old Country than here is indicated by official returns in both countries. Comparing the weekly wages of British "table hands" in December, 1927, with the average wages of 592 Canadian "bench workers" in

<sup>1</sup> Averages of 158 Canadian bakeries, June, 1930.

June, 1930, as reported by Canadian bakeries in all provinces in the present inquiry, the following result is seen:

British Table Hands, Dec., 1927 <sup>1</sup> (64s. 4d.).....	= \$15.44 per week.
Canadian Bench Workers, June, 1930.....	\$22.67 "

The wrapping of bread is a fairly substantial item in Canadian baking costs which hardly appears in the costs of British bakers. The British Report of 1928 already quoted states that "the practice of wrapping the bread before sale has not, as yet, extended very far." The 1925 Report makes no mention of wrapping as a separate cost.

*Delivery and Sale.* The difference between British and Canadian costs of delivery and sale appears to amount to well over one cent per pound of bread, comparing Canadian costs for 1929 with British costs as given in the Report of the Royal Commission on Food Prices in 1925, pp. 36 and 155. Later figures for the United Kingdom are not available. One comparison is seen in the following:

**COSTS OF DELIVERY AND SALE**  
(Per pound of bread)

United Kingdom, January, 1925.....	0·61 cent <sup>2</sup>
Canada, 1929.....	1·65 cent

The British quotation of ·61 cent applies to "bakers whose business is retail or mainly retail." The Canadian figure represents the average for wholesale and retail business combined. In the British report, p. 36, the distributive costs of wholesale bakers, which are given separately, figure out at ·32 cent per pound of bread. In an earlier British report (the Report of the Linlithgow Committee,<sup>3</sup> based on costs in 1923, p. 54) average distribution costs of wholesale bakeries alone are given as ·42 cent per pound, and of retail and wholesale bakers combined as ·53 cent per pound. The larger retail bakers alone averaged ·72 cent, while a group of smaller retail establishments in London averaged ·46 cent.

In its discussion of distribution costs, the Linlithgow Committee made the statement:

"By far the heaviest increase in post-war costs is attributable to distribution, the average cost of distribution of bread in England and Wales amounting, at the present time (October, 1923) to the extraordinary high figure of . . . nearly 1*d.* per 4-pound loaf."<sup>4</sup>

But in Canada this "extraordinarily high figure" of  $\frac{3}{4}$  cent per pound is more than doubled: the average for 119 Canadian bakeries in 1929 was 1·65 cent per pound. As in Britain, so in Canada, the large bakeries have the higher distribution costs: 1·87 cent in 1929.

*Other Cost Comparisons.* A comparison of overhead costs in Canada and the United Kingdom is difficult to make because in the British figures they are included with other costs. The Report of the Linlithgow Committee gives details, however, of baking and distribution costs and from these have been extracted the items which correspond with the overhead charges of the Cana-

<sup>1</sup> Nineteenth Abstract of Labour Statistics in the United Kingdom, 1928, pp. 98-99—average of recognized rates in 20 large towns. Subsequent reported changes have all been in the nature of slight reductions

<sup>2</sup> The British Report shows "an average expenditure on distribution of 9s. 6d. per sack of flour" (280 lbs.) and an average yield of bread of 93½ four-pound loaves, or 374 pounds.

<sup>3</sup> Report of Departmental Committee on Distribution and Prices of Agricultural Produce, published by the Ministry of Agriculture and Fisheries in 1924.

<sup>4</sup> Page 59. The same report states that in England in 1913 distribution costs amounted to less than 2/3d. per 4 lb. loaf.

dian bakeries. Roughly, the overhead expenses of the British baker for 1923 work out at .17 cent per pound of bread, whereas in Canada in 1929 the average was over four times as much, or .77 cent. Without more information on accounting practice in the industry in Britain, these figures can be recorded only tentatively.

Net profit is another item which cannot be exactly determined on the basis of such figures as have been compiled. The Report of the Linlithgow Committee showed the net profit of the large bakeries to be .11 cent per pound, of the smaller bakeries .22 cent, and of the wholesale bakeries .26 cent. In Canada the difference between costs and selling price as given by Canadian bakers for 1929 is .25 cent per pound.

The following table summarizes the above comparisons, Canadian costs (with the exception of flour<sup>1</sup>) being represented by figures for 1929 received from 119 bakeries, and British costs (with the exception of flour<sup>2</sup>) by 1923 figures from the Linlithgow Report:<sup>3</sup>

TABLE 10.—COMPARISON OF CANADIAN AND BRITISH BREAD COSTS  
(Per pound of bread)

	Canada 1929	United Kingdom 1923
	cents	cents
Flour.....	2.71	2.44 <sup>4</sup>
Other ingredients.....	0.76	0.19
Baking costs.....	1.17	0.48
Delivery and sale.....	1.65	0.52
Administration.....	0.77	0.17
Total costs.....	7.06 <sup>5</sup>	3.80

<sup>1</sup> Canadian *flour* costs are based, not on the bakers' returns for 1929, but on the average of 2nd Patents (Montreal rate points) for 1929—\$7.33 per barrel. Average yield, 270 pounds.

<sup>2</sup> British *flour* costs are based, not on the costs shown in the Linlithgow Report, but on the average of London Straights for 1929—\$9.13 per 280 lb. sack = \$6.39 per 196 lb. barrel. Average yield of bread—93.5 pounds to the sack or 262 pounds to the barrel. According to the British Report of 1925 the flour employed in England is normally "straight-run" flour.

<sup>3</sup> Use is made here of the figures from the Linlithgow Report rather than from the Food Commission Report because in the latter administration costs cannot be separated from baking and distribution costs. The costs shown in the Food Prices Report of 1925 are slightly higher, totalling 3.91 cents, taking for flour the figure of 2.44 cents, which is the 1929 average for London Straights. The other items work out as follows:—Other ingredients, .22 cents; baking costs, .64 cents; delivery and sale, .61 cents; each of the latter two items including certain costs of administration.

<sup>4</sup> Flour prices in this table, for the United Kingdom as well as for Canada, are for 1929. Other British figures are for 1923, as explained in the footnote above No. 3. Canadian costs other than flour, are averaged from returns made by bakers in this inquiry. Flour prices in both cases are based on published figures to put them on a common basis. In all probability the actual prices paid by the bakers, in England as well as in Canada, were substantially lower than these. The returns we have received from 119 Canadian bakers for 1929 show an average flour cost of 2.43 cents per pound of bread, rather than 2.71 cents.

<sup>5</sup> These costs, relating as they do to both wholesale and retail business, should not be compared with retail prices. Moreover, for the reason indicated in the footnote above, this figure should not be used as representing actual Canadian costs. For the average Canadian costs based on returns received in this inquiry, see the table on page 30.

## VII. BREAD COSTS IN CANADA

Comment might properly be made on the lack of exact information concerning costs on the part of many of the bakeries, particularly the smaller ones. Many of them apparently keep very incomplete records, and are unable to give a detailed analysis of their costs. The time and expense involved for a small business no doubt accounts for this lack of detail. There is more likelihood in such bakeries of minor costs going unrecorded than in the case of the large establishments, particularly those which have set up more or less elaborate costing systems. Over 450 bakeries representing all the provinces of the Dominion were requested to furnish detailed information showing their costs for 1929 and the first half of 1930. In all 293 returns were received, but of these the costs of only 119 have been found to be recorded in such a manner as to permit their inclusion on a comparable basis in a general statement of bread costs for these periods. In this list of bakeries the provinces are represented as follows: Maritime Provinces, 9; Quebec, 9; Ontario, 55; Manitoba, 5; Saskatchewan, 15; Alberta, 9; British Columbia, 17. The different types of bakery are represented thus: bakeries owned or controlled by flour-milling companies, 76; large independent bakeries selling over 2,000,000 pounds of bread per year, 12; smaller independents selling, with one exception, less than 1,000,000 pounds, 31. Returns have been received also from bakeries operated by retail chain stores. These records do not cover the same period as those of the other bakeries, and have had to be dealt with separately.

The average costs of making and selling bread, based on the returns from the 119 bakeries, appear in the following analysis:

TABLE 11.—AVERAGE COSTS PER POUND OF BREAD, CANADA

	1929	1930 (first six months)
	cents	cents
Flour.....	2.43	2.56
Other ingredients.....	0.76	0.74
Baking costs.....	1.17	1.19
Delivery and sale.....	1.65	1.66
Administration.....	0.77	0.80
Total costs.....	6.78	6.95

It is to be noted that these costs are averages. The range between highest and lowest was considerable. Of the 119 bakeries, three reported costs of nine cents per pound and upwards and five reported costs under five cents. The great majority reporting came between six and eight cents.

### FLOUR COSTS

Reference has been made in an earlier section of this report to the relation of flour prices to bread prices. In that section, however, the flour prices quoted were from the Bureau of Statistics records, representing carlot prices of Second Patent Flour, Montreal rate points, which prices are subject to varying discounts. For 1929 the Bureau's average for Second Patents was \$7.33, the equivalent of 2.71c. per pound of bread. According to the returns we have received from 119 bakers for 1929, they actually paid for flour in 1929 an average of 2.43c. per pound of bread. Flour costs therefore represent only 36 per cent of all bread costs in 1929. The fact is that, as an item in the baker's expenses, flour has been becoming less and less important in the modern loaf of bread. Little in the way of cost statistics of pre-war years is avail-

able, but the evidence of prices is that in 1913 flour represented 43 per cent of the retail price, whereas in 1930 it was only 31·6 per cent, taking for both years the figures recorded by the Bureau of Statistics.

Examining flour costs by types of bakery, one would expect to find that the bakeries which are controlled by the flour milling companies, by reason of their mass purchasing of flour from one company, could buy at such low prices as would enable them to make an appreciable saving in costs on account of flour alone. The evidence of the bakers' returns shows, however, that neither in 1929 nor in the first six months of 1930 was there any difference between the average flour costs of the mill-owned bakeries and of the large independents. In 1929 the smaller independents paid for the flour used in a pound of bread exactly a fifth of a cent more than the mill-owned bakeries paid, but in the first half of 1930 they paid only a fourteenth of a cent more (.07c.) per pound of bread. The comparison is shown thus:

COST OF FLOUR BY TYPES OF BAKERY  
(Per pound of bread)

—	Number of bakeries	1929	1930 (six months)
		cents	cents
Mill-controlled bakeries.....	76	2·38	2·55
Large independents.....	12	2·39	2·56
Smaller independents.....	31	2·58	2·62
Total bakeries.....	119	2·43	2·56

The above figures show the average cost of flour per pound of bread. The same 119 bakeries made returns giving their average costs of flour per barrel. Of these returns those for 1929 show that the mill-owned bakeries were the lowest, \$6.76 per barrel; the large independents next, \$6.85; and the smaller independents the highest, \$6.98, the average for all being \$6.83. In 1930, however, the mill-owned bakeries paid \$7.20, the large independents \$7.35, while the small independents paid less than either of the other groups, \$7.03, the average for all being \$7.17. The lower figure of the smaller independents in 1930 may be explained by the possibility either of their using less expensive grades of flour, or of their purchasing the same grades at better prices.

#### COST OF OTHER INGREDIENTS

One reason for the lessened importance of flour as an item in modern bread costs is that nowadays less flour goes into a batch of bread than in the earlier period, less flour but more of other ingredients such as sugar and milk. The difference in richness between the 1913 and 1930 loaf is not, however, sufficient to explain more than a small difference in cost. A study of bread costs which was published in the *Labour Gazette* of July, 1916, cites as typical a formula in which the cost of ingredients other than flour amounted to 0·38c. per pound of bread in 1914. Our 1929 records show that the cost of these other ingredients was 0·76c. per pound of bread, an increase of slightly over one-third of a cent to the pound. Only a slight difference is noticeable between 1929 and 1930. In the records of the different types of bakery, the smaller independents showed in both years the lowest cost of the three groups, as the following summary indicates:—

COST OF OTHER INGREDIENTS BY TYPES OF BAKERY  
(Per pound of bread)

	1929	1930 (six months)
	cents	cents
Mill-controlled bakeries.....	0·78	0·74
Large independents.....	0·87	0·90
Smaller independents.....	0·69	0·67
Total bakeries.....	0·76	0·74

The average costs per pound of the different ingredients are indicated in the following figures: salt, 1·5c.; sugar, 5·c.; shortening, 13·1c.; milk, 9·2c.; malt, 10c.; yeast, 23·1c.; yeast food, 10·6c. These averages are based on the returns of over eighty bakeries, two-thirds of them mill-controlled.

• BAKING COSTS

Baking costs, as recorded above, amounted in 1929 to 1·17c. per pound of bread. Included in this item are three subdivisions, and the amounts chargeable to each are:

Wages.....	0·70 cents per pound of bread
Wrappers and wrapping.....	0·16      "      "
Other baking costs.....	0·31      "      "
Total.....	1·17      "      "

According to this statement, the cost of wrappers and wrapping comes to 16c. per pound of bread. Since this average includes accounts from some bakers who do not wrap bread at all, and from others who wrap but little, it should not be taken as indicating the wrapping cost of the individual baker. Answering another item in the department's questionnaire, the bakers reported widely varying costs of both wrappers and wrapping, estimates ranging from a quarter of a cent to one cent per loaf, though a few estimates ran as high as a cent and a half a loaf. Out of the 175 bakeries which reported on this item for 1929, 29 stated that they wrapped all their bread. In one province, New Brunswick, this is compulsory. Other particulars are shown in the following statement:—

	Number of bakeries reporting
PROPORTION OF BREAD WRAPPED, 1929	
All wrapped.....	29
50-99 per cent wrapped.....	61
1-50 per cent wrapped.....	53
None wrapped.....	32
	175

These figures should not be taken as representing the proportions of wrapped and unwrapped bread in the whole Dominion. The probability is that most of the bakers who did not report do not wrap their bread.

As for prices of wrapped bread, where both wrapped and unwrapped loaves are sold, the difference is usually one cent per loaf, whether it is the pound-and-a-half loaf of the eastern and central provinces or the lighter loaf of the West. The prices quoted in the *Labour Gazette* represent both wrapped and unwrapped bread. Where both prices are reported, the figure used is an average of the two.

The average baking costs of the mill-controlled bakeries and the larger independents are substantially lower than those of the smaller independents, and this in spite of the fact that bakery wages in the larger plants are higher than in the smaller, as indicated above. Doubtless much of the difference between these costs is to be found in the greater use of machinery where the volume of production is high, and in the more efficient running of the larger plants under more modern methods. The differences in the costs of the several groups are shown in table form:—

BAKING COSTS BY TYPES OF BAKERY  
(Per pound of Bread)

	1929	1930 6 months
	c.	c.
Mill-controlled Bakeries.....	1.06	1.10
Large Independents.....	1.04	1.00
Smaller Independents.....	1.47	1.51
Total Bakeries.....	1.17	1.19

It is frequently stated that high wages are the cause of high bread prices. It is difficult to secure decisive tests owing to the lack of comparative figures over a period of years. Practically none are available between 1913 and 1920, and even those between 1920 and 1930, in the reports of the Department of Labour, being samples only and apparently samples of the highest, are inadequate except as indicating the trend. An examination of the sample wages of seven groups of bakery workers shows that between 1920 and 1930 there were reductions in every instance but one, varying from \$1 to \$2.50 a week. The one exception, machine operators, showed no change. The other six groups referred to are: mixers, bench workers, spongers, oven tenders, packers, and delivery employees. The disparity between these sample figures and a more representative average is illustrated by a comparison of wages of bench workers. The average of these sample wages for 1930 was \$28.35; whereas the returns received in the present inquiry on the wages of 592 bench workers, representing all provinces, show an average of \$22.67 per week, three-quarters of the bench workers receiving wages of \$25 or less.

#### DELIVERY AND SALE COSTS

The outstanding development in the cost end of the bread-baking industry in recent years has been the rise in selling expenses. In the first half of 1930 the average cost of delivery and sale, according to the returns of 119 bakeries, was 1.66c. Few comparable records for earlier years are available, but a comparison of the present returns of five Montreal bakers with their statements in the 1925 bread inquiry (only five are comparable) indicates that distribution costs were increased in the case of four plants (from 1c. to 1.98c. per pound of bread, from 1.30c. to 1.97c., from 1.99c. to 2.36c., and from 1.04c. to 1.80c.). In the other instance distribution costs decreased from 2.03c. to 1.91c. Another indication of this trend is the fact that in 1913 all items of cost other than flour amounted to less than 2.4c. (flour cost 1.8c. and bread sold at 4.2c.). What the average of 1.66c. per pound in 1930 means is that the Canadian consumer, buying a pound-and-a-half loaf for, say, 10 cents, paid 2½ cents to cover the baker's sale and delivery expenses. Getting away from the Dominion average and taking Toronto costs alone, which are unusually high, the Toronto housewife paid not 2½c. but 3½c. to have a 24-ounce loaf sold to her and delivered to her kitchen. One Toronto baking company reported its delivery and sales costs in 1929 as amounting to 5.18c. per 24-ounce loaf.

These figures represent wholesale and retail costs combined. If retail costs were separated (and they cannot be on the basis of the figures secured) the cost of retail delivery and sale would be shown as still higher. Moreover, the figure of 1·66 cent for the Dominion is an average of all three types of bakery: the mill-controlled bakeries, whose output far exceeds that of all the other bakeries reporting, averaged 1·86 cent for 1929 and 1·90 cent for 1930, as shown in the following summary:

COST OF DELIVERY AND SALE BY TYPES OF BAKERY  
(Per pound of Bread)

—	—	1929	1930 6 months
		c.	c.
Mill-controlled Bakeries.....		1·86	1·90
Large Independents.....		1·91	1·87
Smaller Independents.....		1·04	1·01
Total Bakeries.....		1·65	1·66

One explanation of the exceptionally high distribution costs of the larger bakeries appears to lie in their use of high-pressure sales methods. They have, to begin with, a productive capacity which in most instances is greater than their market. The plant of the Canada Bread Company in Ottawa, for instance, or of the Standard Bread Company, either one, could produce more bread than is eaten by all the people in the city. More than that, there are at least twenty-five other bakeries doing business in Ottawa, a number of them giving city-wide delivery service. Naturally if a bakery is to approach capacity, it must have a highly effective selling force in the face of such competition. But ordinarily it is not competition in *price* which characterizes the efforts of the larger bakeries to secure business. Price competition would be effective in keeping costs down; but the competition in quality, in service and in sales promotion which has been substituted has had just the opposite effect of tending to increase costs and therefore to enhance prices and keep them up. Here is one instance where competition (not *price* competition, it is to be noted) operates to the disadvantage of the public. All the arts of modern salesmanship have been put to use—extensive and expensive advertising campaigns, special delivery services, credit, feature breads of fancy shapes or fancy ingredients—all designed to secure volume. Sales effort to secure volume has its economic justification when increased volume makes possible lower costs and lower prices. In the bread-baking industry, however, while volume has been secured by a few large baking companies, the selling expenses involved in gaining this volume have been exceedingly heavy, and apparently have more than offset whatever may have been effected in the way of economies from large-scale production. Certainly there is no evidence here that increased volume means lower prices: the records show that it is the large bakeries that are the high-price bakeries.

One of the biggest items in modern sales costs in Canada, as in the United States, is represented by wages and commissions to deliverymen, or salesmen as they are now usually designated. That this is recognized generally by the trade, in the United States and in Canada, is illustrated by the following quotation from a recent article in "The Northwestern Miller":<sup>1</sup>

Actually, the backbone of all bakery sales work is that done by the route men. They are in constant contact with their trade, and in the final analysis it is upon them that the entire sales structure rests.

<sup>(1)</sup> Article by Wayne G. Martin, Jr., in "The Northwestern Miller", January 28, 1931, p. 226.

The change in designation from deliverymen to salesmen is significant. Years ago the practice was to pay a weekly wage to a "driver" whose duty was to deliver bread. This system has not been completely outmoded, but another practice has grown up, principally in the larger centres, of paying a commission on sales—and the salesman's business now is, not merely to deliver, but to get business, frequently at the expense of rival bakeries; and not only to sell bread, but to sell cakes and pastry as well. A commission of 15 per cent on a ten cent loaf of 24 ounces means  $1\frac{1}{2}$  cent. In England in 1923 the entire cost of distribution was only a third of that amount. Selling, say, 300 loaves a day, perhaps 200 retail and 100 wholesale, a salesman will net \$3.60 on his day's bread sales, and he has besides a further income from his sales of cake and pastry. The point is not that these men are getting too much for their services (they are probably getting only a moderate wage) but rather that they are being used, not as deliverers of bread, but as part of an aggressive sales organization which has proven decidedly expensive. The addition of sales work to their duties and of cakes and pastry to their stock-in-trade has added greatly to the cost of the delivery function, which used to be the only function of the "driver" of the bread-waggon.

Where the baking companies sell at wholesale, that is through the retail grocer, the commission usually paid to the salesman is 7 per cent, while the retail grocer's margin works out at about a cent a pound, although in some parts of the country it runs as high as two cents a pound. Figuring, however, on the cent a pound margin and the 7 per cent commission, both costs together come to just over two cents for a pound-and-a-half loaf selling, through these channels, at ten cents. Usually the same loaf is bought for the same price, whether from the baker's salesman or from the grocer, the price including delivery in both cases.

#### OVERHEAD COSTS

Administration and other overhead costs may be summarized briefly as follows:—

#### OVERHEAD COSTS BY TYPES OF BAKERY

(Per pound of Bread)

—	1929	1930 6 months
	c.	c.
Mill-controlled Bakeries.....	0.84	0.86
Large Independents.....	0.71	0.67
Smaller Independents.....	0.61	0.70
Total Bakeries.....	0.77	0.80

In requesting information on this point the Department's questionnaire called for "administration and other overhead expenses," divided as follows:—

Management and office expense.

Bond or other interest paid.

Other fixed charges, including depreciation, insurance, taxes, etc.

#### SUMMARY OF COSTS

Bringing together the averages of all the items of cost as they have been submitted by 119 Canadian bakers for the year 1929, a more comprehensive statement is here submitted, showing more details within each item of cost and still reporting separately the three different types of bakery:—

TABLE 12.—SUMMARY OF COSTS OF MAKING AND SELLING BREAD, CANADA, 1929  
BY TYPES OF BAKERY  
(Cents per pound of Bread)

	Mill-controlled Bakeries	Large Independents	Smaller Independents	All Bakeries
Number of bakeries reporting.....	(76)	(12)	(31)	(119)
<b>Flour.....</b>	c. <b>2.38</b>	c. <b>2.39</b>	c. <b>2.53</b>	c. <b>2.43</b>
<b>Other ingredients.....</b>	<b>0.78</b>	<b>0.87</b>	<b>0.69</b>	<b>0.76</b>
<b>Baking costs—</b>				
Wages.....	0.59	0.52	1.02	0.70
Wrappers and wrapping.....	0.14	0.13	0.24	0.16
Other baking costs.....	0.33	0.39	0.21	0.31
<b>Total baking costs.....</b>	<b>1.06</b>	<b>1.04</b>	<b>1.47</b>	<b>1.17</b>
<b>Delivery and sale—</b>				
Wages and commissions.....	1.11	1.16	0.73	1.02
Other delivery costs.....	0.59	0.59	0.23	0.50
Advertising.....	0.12	0.14	0.02	0.10
Other selling costs.....	0.04	0.02	0.06	0.03
<b>Total delivery and sale costs.....</b>	<b>1.86</b>	<b>1.91</b>	<b>1.04</b>	<b>1.65</b>
<b>Overhead—</b>				
Management and office.....	0.45	0.31	0.25	0.38
Interest.....	0.07	0.14	0.02	0.07
Other overhead.....	0.32	0.26	0.34	0.32
<b>Total overhead.....</b>	<b>0.84</b>	<b>0.71</b>	<b>0.61</b>	<b>0.77</b>
<b>Total costs.....</b>	<b>6.92</b>	<b>6.92</b>	<b>6.39</b>	<b>6.78</b>

To show the way in which these costs differ as between provinces the following table is added:—

TABLE 13.—SUMMARY OF COSTS OF MAKING AND SELLING BREAD, CANADA, 1929  
BY PROVINCES  
(Cents per pound of Bread)

	Mari-time Prov.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Number of Bakeries reporting.....	(9)	(9)	(55)	(5)	(15)	(9)	(17)
	c.	c.	c.	c.	c.	c.	c.
<b>Flour.....</b>	<b>2.58</b>	<b>2.48</b>	<b>2.39</b>	<b>2.43</b>	<b>2.30</b>	<b>2.35</b>	<b>2.61</b>
<b>Other ingredients.....</b>	<b>1.06</b>	<b>0.65</b>	<b>0.70</b>	<b>0.67</b>	<b>0.86</b>	<b>0.79</b>	<b>0.82</b>
<b>Baking costs:—</b>							
Wages.....	0.83	0.53	0.62	0.65	0.65	0.79	0.98
Wrappers and wrapping.....	0.25	0.20	0.14	0.11	0.17	0.31	0.09
Other baking costs.....	0.39	0.26	0.23	0.21	0.43	0.52	0.32
<b>Total baking costs.....</b>	<b>1.47</b>	<b>0.99</b>	<b>0.99</b>	<b>0.97</b>	<b>1.25</b>	<b>1.62</b>	<b>1.39</b>
<b>Delivery and sale costs:</b>							
Wages and commissions.....	0.93	1.20	1.12	0.83	0.62	0.80	1.19
Other delivery costs.....	0.55	0.45	0.45	0.23	0.55	0.98	0.46
Advertising.....	0.15	0.07	0.11	0.07	0.05	0.06	0.08
Other selling costs.....	0.04	0.03	0.02	0.01	0.07	0.04	0.04
<b>Total delivery and sale costs.....</b>	<b>1.67</b>	<b>1.75</b>	<b>1.70</b>	<b>1.14</b>	<b>1.29</b>	<b>1.88</b>	<b>1.77</b>
<b>Overhead costs:</b>							
Management and office.....	0.32	0.33	0.37	0.30	0.44	0.35	0.46
Interest.....	0.05	0.07	0.04	0.08	0.09	0.04	0.11
Other overhead costs.....	0.46	0.42	0.32	0.23	0.23	0.13	0.44
<b>Total overhead costs.....</b>	<b>0.83</b>	<b>0.82</b>	<b>0.73</b>	<b>0.61</b>	<b>0.76</b>	<b>0.52</b>	<b>1.01</b>
<b>Total costs.....</b>	<b>7.61</b>	<b>6.69</b>	<b>6.51</b>	<b>5.82</b>	<b>6.46</b>	<b>7.16</b>	<b>7.60</b>

A note remains to be added as to the proportion of labour costs to total costs. The statement is frequently heard that bread prices are high because wages are high, the wages of those who make the bread and deliver it. The analysis of costs in the above tables hardly bears this out. A casual examination of them, it is true, shows that the averages of payments made to all employees (exclusive of office staff) total 1.72c. per pound of bread, and that total costs are 6.78c., the one approximately a quarter of the other. But an analysis of the 1.72c. shows that only .70c. goes to the men who do the baking, and of the rest, 1.02c., a very considerable part is in payment of sales services as distinct from delivery services. It is not a high weekly wage that raises the distribution cost per pound of bread; it is the excessive duplication of bakery routes and the requirement that the man who delivers the bread shall spend a large portion of his time selling other things that are more difficult to sell and canvassing for new customers for his firm. If he gave all his time to the mere delivery of bread the cost per pound of bread would be reduced without any reduction in wages.

## VIII. COMBINATION IN THE BREAD-BAKING INDUSTRY

The statistics on Canadian bread prices as quoted in the foregoing sections do not furnish conclusive evidence of combination within the bread-baking industry; but the higher and sustained levels of prices from 1926 to the middle of 1930 do suggest strongly that during that period certain stabilizing influences were at work and rather effectively at work. It is in this period, as is illustrated in charts 5 and 7, that prices in Canada, for whatever reason, were maintained and even advanced slightly in the face of declines in bread prices in both the United States and the United Kingdom. What is more significant is that this higher level of Canadian bread prices was maintained in spite of a gradual decline in the price of flour in Canada: the 1926 average for Second Patents was \$8.32; 1927, \$7.74; 1928, \$7.17; while the first six months of 1929 averaged \$6.75.

The price of bread is not, of course, as flexible as the price of either flour or wheat. Neither is the competitive area as wide as in the case of flour or wheat. As a perishable bulky commodity, bread must be marketed within a comparatively short distance from the bakery, as well as within a short time after its production. Even though the improvement of roads and the use of trucks have widened the marketing area of producing plants, the range is still limited to a fairly restricted territory.

Competition therefore has until recent years been a matter of more or less local concern. Where prices were low it was presumably because of price competition. But the competitive situation in Hamilton, for instance, had little or nothing to do with the situation in, say, Vancouver: the bakers in each locality were seldom subject to outside control or influence. It is only recently that a new situation has arisen whereby the ultimate decisions on Hamilton prices are not necessarily made in Hamilton, or on Vancouver prices in Vancouver; both may be decided in Toronto or Montreal or Winnipeg. If decisions are made by the local groups they are subject to prior influence or subsequent review on the part of centralized managements in some larger centre.

This new inter-city relationship has come with the advent of the large chain bakeries, nearly all of them now controlled by one or other of the large flour milling companies. Until 1925 there were but few chains of bakeries operating in Canada; the largest of them, the Canada Bread Company, was organized in 1911. Since early in 1925, at least twelve new chains of substantial size have come into being, nine of them now under the control of four flour milling companies. Of the three others, all owned independently of the milling companies, one has since disintegrated and the other two are operating 13 bakeries, all of them in Ontario but none in the larger centres. Another independent chain of substantial size, producing a special kind of bread and providing no delivery service, has developed since 1920, when its first plant was opened in Alberta. It is now operating in six cities in Ontario as well as in seven in Alberta and Saskatchewan.

The mill-controlled chains are now represented in every province except Prince Edward Island; they operate 96 plants in 54 communities. A list of these bakeries is included in this report as Appendix K.

The flour milling companies which control these bakeries are as follows:—

Lake of the Woods Milling Company, Limited

Maple Leaf Milling Company, Limited

Ogilvie Flour Mills Company, Limited

Western Canada Flour Mills Company, Limited

Of these the Maple Leaf Milling Company was the first to enter the bakery business on a large scale. No doubt individual flour mills, to protect themselves, have had to become financially interested in individual bakeries almost as long

as baking has been practised in a commercial way. But the Maple Leaf Milling Company entered the field in a large way on September 1, 1925, when through Canadian Bakeries, Limited, it acquired a group of bakeries in Western Canada. It has since taken over or organized three other bakery chains: the Canada Bread Company, which first appears as a subsidiary in 1928; Dominion Bakeries, Limited, in the same year; and, more recently, Eastern Bakeries, Limited, in the Maritime Provinces.

The Lake of the Woods Company controls the Inter City Baking Company, Limited, which operates in Central Canada, and the Inter City Western Bakeries, Limited, with branches west of the Great Lakes. The first of these was incorporated and came under the control of the Lake of the Woods Company in November, 1927; the western bakeries were acquired early in 1929.

The chief baking interests of the Ogilvie Flour Mills Company are managed by Consolidated Bakeries, Limited, incorporated in 1928, which in turn controls Northern Bakeries of Canada, Limited. The plants in this group are located in Montreal and Ontario. Recently a new chain of five bakeries has been taken over in Western Canada under the name of McGavin Bakeries, Limited.<sup>(1)</sup>

The bakeries of the Western Canada Flour Mills Company are controlled through the Purity Baking Company, Limited, Toronto, which has eight branches in that and neighbouring cities, two in Montreal, and four in the Western Provinces.

The method of control exercised by the milling companies over their baking companies varies. The control over Consolidated Bakeries rests with three preferred management shares, two of which are held by the president and the secretary of the Ogilvie Company. These three shares carry the right to appoint the board of directors. In the case of the Lake of the Woods Milling Company, it held in 1930 10,000 out of 21,070 no par common shares issued by the Inter City Baking Company, Limited, and 88 per cent of the common stock of Inter City Western Bakeries. Maple Leaf's control over Dominion Bakeries, Limited, is through ownership of a majority of its second preferred and common stocks. The entire capital stock of the Purity Baking Company is controlled by the Western Canada Flour Mills Company, Limited.

Some idea of the part which the mill-controlled bakeries are taking in the manufacture of the bread of the Dominion is given by their total output compared with the estimated consumption of bakers' bread in Canada. According to the records of the Dominion Bureau of Statistics for 1929 the quantity of bread manufactured by the bakers of the Dominion for that year amounted to 835,794,310 pounds. Measuring this against the officially estimated population of the Dominion for 1929 (9,796,800) the Bureau's estimate of the per capita consumption of bakers' bread for that year was 85.3 pounds.<sup>(2)</sup> The statements of the mill bakeries give their total production for 1929 as 317,819,277 pounds of bread. On this basis, 38 per cent of the bread sold in Canada in 1929 was produced by 76 mill bakeries. As, however, these bakeries have plants in only 54 communities, their output should be measured, not against the total production of bakers' bread for the Dominion, but against the market for bread of these particular places, making due allowance for out-of-town trade. According to the latest estimates available, the population of the 54 communities in 1929 was 3,192,280, not far below one-third of the Dominion's population. Their estimated consumption of bakers' bread on the basis of 85.3 pounds per person,

(1) This company is to be distinguished from McGavin, Limited, which operates bakeries in Edmonton and Vancouver. The Ogilvie Company states that in McGavin, Limited, it has only a small financial interest which does not amount to control.

(2) The estimated consumption of bakers' bread was 91.0 pounds in 1928 and 82.5 pounds in 1927.

was therefore 272,301,484 pounds. The sales of bread reported by the mill bakeries in these cities in 1929 were 317,819,277 pounds. Estimating 80 per cent of these sales as city sales,<sup>1</sup> the production for the 54 cities and towns stands at 254,255,422 pounds, or 93½ per cent of the entire business of the communities in which they operate.

The above figures refer to the actual output of bread of the mill-controlled bakeries in 1929. The total capacity of 72 of their plants (again according to their own statements) is 892,679,000 pounds a year, or nearly treble their output, or over 50,000,000 pounds in excess of the 1929 total bread sales reported for the whole Dominion.

Six mill-controlled bakeries in Montreal, for instance, with an aggregate yearly capacity of 163,236,000 pounds of bread, could supply four-fifths of the bread sold throughout the whole province of Quebec. The total of all bread sold in Montreal alone, based on population of just over a million, would be only 87,914,000 pounds.

Six of Toronto's seven mill-controlled bakeries reported capacity of 202,-389,000 pounds a year. City purchases amount annually to only 68,581,000 pounds, taking the estimated population of 804,000. In fact the whole of Ontario bought in 1929 only 403,000,000 pounds.

Winnipeg's three mill-controlled bakeries have capacity enough (77,542,000 pounds a year) to supply the whole province and more, estimating the annual provincial consumption of bakery bread as 57,000,000 pounds. The city of Winnipeg alone, with an estimated population of 192,000, buys only 16,377,000 pounds a year.

Vancouver has four mill-controlled bakeries, with estimated capacity of about 50,000,000 pounds, almost enough to meet the total purchases of the province, which are estimated at 58,668,000 pounds. Vancouver itself, with a population of 238,885, buys only about 20,377,000 pounds.

One effect of this factor of surplus capacity which has a bearing on the present inquiry is that it keeps before the management the constant necessity of increasing sales, and thereby leads to the aggressive sales policies which add so considerably to cost and benefit the general public so little. Most of this expensive sales effort is designed not so much to increase the consumption of bread as to persuade customers of rival concerns to "change bakers". This can hardly be called a social benefit. The big bakery cannot be held solely responsible for the system. There is little doubt that the demand of the public, or of some portions of the public, for something new to eat is one of the reasons back of the development of such sales methods. This desire for change is capitalized by the shrewd sales manager: new varieties of bread are advertised under "catchy" names as being made by the latest scientific processes and as containing the last word in nutritive value; new shapes are turned out, bread ready sliced is introduced and special delivery services added, all in an effort to retain old customers and gain new ones from competitors. It is significant that in the city of Toronto, where this kind of competition has been particularly keen in recent months and years, the cost of delivery and sale in 1929, amounting to 2·45c. per pound of bread, was higher than the cost of flour. This is the kind of expensive competition to which we have become accustomed in connection with such articles as motor cars, radios, washing machines, with their constantly changing models, articles on which sales costs are high because of the time, ability and effort usually needed to complete a sale. There is less to

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<sup>(1)</sup> Returns received from 70 mill bakeries showed that 83·3 per cent of their total bread sales were city sales.

be concerned about when this kind of competition is brought to bear upon non-essentials. But it is not desirable that bread, as one of the most important of the necessities of life, should be brought within this category. It does not require such selling efforts: the consumer does not need to be persuaded to buy bread, and should not be called upon to pay for one baker's efforts to persuade the public to buy from him rather than from a competitor.

Under the new relationship between the flour milling company and its bakery subsidiaries, purchases of flour are naturally made from the parent company. Our records show that in 1929 the mill-controlled bakeries purchased in all well over a million barrels. Moreover, this million barrel market was held by only four milling companies, and represented an eighth of the entire consumption of flour in Canada in 1929. These milling companies are thus provided with an assured demand for a large portion of their products, and consequently should be able to reduce considerably their sales costs. One decided advantage to the mills is that there is no competition for this business, price competition or any other kind. There is no sales resistance here to be overcome, and the subsidiary baking company is no longer in a position to bargain effectively as to price. The difficulty of this relationship has been recognized from the beginning, as is evidenced by the following comment in the *Financial Times* of July 22, 1927:—

The present relationship of Canada Bread to Maple Leaf has not worked out so satisfactorily for Canada Bread as could be desired. Contracts for supply made by Maple Leaf Company are said to have favoured the parent concern in the past. If Canada Bread interests were in control of Maple Leaf Company, Canada Bread Company would at least get an even break.

Considering the difference in quantities purchased, the comparatively slight difference in the flour prices paid by the mill-controlled bakeries and the independents is rather striking. Here is one organization, for instance, which bought over 300,000 barrels of flour in 1929 at an average price of \$6.79 per barrel. A small bakery doing business in the same province and buying less than two thousand barrels of flour of the same grades, part first and part second patents, now from one mill and now from another, paid an average of \$6.35 for its supply in 1929.

Since for the most part the milling company gains what its baking subsidiary loses through high prices of flour, the buyer for the mill-controlled bakery is not under the usual pressure to keep his flour costs down. He is now in the employ of the mills and is not free to turn to other mills for his flour supplies. On the other hand the sales manager of the milling company is anxious to make a good showing for his department and will hardly be expected to favour the bakery as against his own selling company; he can quote what prices he likes, since he has no competitor. It is true that the ability of the milling companies to pursue such a policy would depend largely on the extent to which stock ownership in parent companies and subsidiaries coincided. Shareholders in the baking companies who held no shares in the milling companies would be restive under a reduction in bakery profits. Still in some instances at least the shareholders in the two companies are much the same.

One group that would suffer from such a policy would be, of course, the independent bakeries. They, too, would have to pay the higher price for flour, but in their case there would be no affiliated concern to profit by the losses they might sustain. As competitors they would be placed at a decided disadvantage.

As far as price competition in the ordinary course is concerned, the independents probably have little to fear from the mill-controlled bakeries, because the prices of the latter group are seldom if ever found to be below

their independent competitors. They are more frequently above, the better price being asked on claims of better quality and service. The independents might have occasion to fear price competition from this source if they themselves cut in on the sales of the mill bakeries by means of price reductions. Within recent weeks representations have been received from different parts of the Dominion to the effect that mill-controlled bakeries had threatened to sell bread below cost if certain independents persisted in selling at prices which, according to the claim of the mill bakeries, were below cost. There has not been opportunity to follow up these complaints, except in one instance, namely, in Peterborough; but the point raised suggests a very natural interest on the part of the mill bakeries in the prices of their competitors, and a temptation to exercise a measure of control over them.

In the case of Peterborough, the low-price competition of chain stores and others was a disturbing factor in the trade in the fall of 1930. The situation was complicated by the activity of an out-of-town baker shipping bread into Peterborough at low prices and thereby affecting seriously the business of both large and smaller bakeries. The manager of one of the two mill-controlled bakeries, taking exception to this competition, warned the outsider that if he continued to cut prices in Peterborough he would have to deal, not with the smaller bakers in the city, but with the mill bakery. "You will have to contend with me", he said, "not with them. If you cut the price, so will we, wherever you go." Assuming this to be a correct report of what was said, by the manager of one bakery out of many, even though it be the largest and one of a chain of bakeries, the incident does not constitute an offence under the Combines Investigation Act. It illustrates, however, one of the methods which a chain of bakeries, financially strong and operating in many centres, might be able to use effectively in controlling the price policies of its competitors in one community.

Another incident disclosed in the evidence taken at Peterborough might be recorded at this point. In November, 1930, a period of unusually low prices prevailed, during which bread was sold generally at 6c. wholesale and 7c. retail for the 24-ounce loaf. To outward appearances a price war was being waged; but on closer examination it was evident that it was being staged not waged; it was rather a sham battle in which the participants knew what the outcome was to be.

In September, 1930, when the larger Peterborough bakeries were selling bread wholesale at 10c., and later at 9c., some of the smaller independent bakers cut the price as low as 6c., thereby enabling the retail grocers to meet the chain store price of 7c. This price proved damaging not only to the larger bakeries, but to the small bakeries themselves, since it meant selling below their cost. In the hope of extricating themselves they appealed to the larger bakeries, and an arrangement was made early in November whereby the larger bakeries would come down to the low price of 6c., with the definite intention of remaining at that price for a short time only, when all the bakers would advance together. It was not decided in advance apparently how long the low prices would continue, or what prices would prevail subsequently. By the end of November all the local bakers had suffered such losses as to create a general desire for an increase. It was decided then to raise the price to 8c. wholesale and 9c. retail. The head of one of the two mill-controlled bakeries was reported to be in favour of the smaller bakers making only a one-cent advance (their business was largely wholesale), but the other large bakeries held out for the same increase on the part of all, otherwise they would continue at the 6c. level. The increase was put into effect on December 1st, but shortly afterwards one of the smaller bakers dropped to the 7c. price, thus enabling the retail stores to sell at 7c. in order to meet chain store competition.

That neither the arrangement among the Peterborough bakers in November and December nor the power of the mill-controlled bakeries was effective in keeping up prices at the higher level is evident from the fact that at the present time citizens of Peterborough are able to buy bread at 7 cents and that they have been able to do so since September last at least. It is difficult to conceive of such measures being effective so long as there exists such competition as that of the chain stores, some at least of which have been selling bread at cost or even below cost.

There are evidences that the effectiveness of the price competition of independent bakeries in many centres is waning. In volume of sales they are completely overshadowed by the mill-controlled bakeries. In point of numbers they appear to be strong, 2,482 bread-baking establishments reporting to the Bureau of Statistics in 1928, the latest year for which such returns are available. The number of them, however, is not by any means a fair index of their competitive importance. For the most part in normal times the larger bakeries have set the price and the rest have followed: were obliged to follow when prices fell, and were only too glad to follow when the big bakeries saw fit to advance. There have been notable exceptions, however, and after all it takes only a few bakeries operating at low costs and seeking business on a price appeal, to create a very disturbing influence. Such a disturbance can be very useful as a means of calling public attention occasionally to the matter of price; but it can be carried to extremes of selling below cost with no ultimate advantage to the public, possibly in the end more injury than benefit.

#### THE CHAIN STORE

Within recent months other forms of competition have appeared which make it difficult for the mill-controlled bakeries to sustain prices at unduly high levels. The same tendency toward centralization of industry which is seen in the consolidation of bakeries and their control by flour-milling companies is to be observed also in the entrance of the chain store into the bakery business. On the one hand we have the flour mills reaching forward into bread manufacture and distribution; on the other we have the chain store, primarily a retail distributing organization, reaching back into manufacture—the two meeting on the common competitive ground of the bread-baking industry.

Returns on bakery costs were secured in this inquiry from the larger chain store companies which also operate bakeries. Our records include six such bakeries operating in Canada, two in the Province of Quebec, three in Ontario, and one in Manitoba. These bakeries represent three separate chains, all of which have furnished information concerning their costs and prices, one of them for 1930 only. Unfortunately these records cannot very well be used alongside the returns of the other types of bakery in our comparisons. Apparently the methods used in apportioning costs to the different items and to the bread end of their business generally are not the same with each chain store bakery, and without a close examination of the books of all of them their costs cannot be brought to a common basis which would make them comparable with the costs of other types of bakery.

While their total costs cannot for this reason be readily compared, comparisons of the cost of ingredients can be quoted on a comparable basis, using the 1930 averages only. The flour which these six chain store bakeries used in a pound of bread in the first six months of 1930 cost them 2·48 cents as compared with the average price of 2·56 cents paid by the other types of bakery. For other ingredients the chain store bakeries averaged ·68 cent, while the others averaged ·74 cent. In both cases the costs of the chain store bakeries were only fractionally lower than those of their competitors.

Turning to the retail prices of these chain stores, it is apparent that the price competition which they have introduced during 1929 and 1930 has created a serious problem for the larger bakeries. If the prices of the chains covered all their own costs of manufacture and selling, the problem would be much less difficult than it is. In the case of two of these chain groups no losses on account of bread sales are recorded, that is comparing receipts on bread sales with the costs which they have apportioned as properly chargeable to bread. Another group reports selling prices in the first half of 1930 as approximately three-quarters of a cent a pound below its own recorded costs, leaving net profits out of account. The *selling prices* of all the groups show differences of only three-tenths of a cent a pound; but their *costs* show the widest divergence: a difference between the highest and the lowest cost of  $2\frac{3}{4}$  cents a pound, and between the highest and the medium cost of  $1\frac{3}{4}$  cents. A large part of the difference is found to be in distribution and overhead costs. It may be that in one instance too much has been charged against bread, and that in another too little. In any event such records cannot be used freely without the closest checking. If one were to take the statements just as they have been given, it would appear that about half of these chain stores were selling below cost and about half above cost.

The above returns have been supplemented by the records of seven other chain store companies which are not engaged in the baking business, but which buy their bread from local and other bakeries. In practically all of these stores bread was sold at a profit, or at least at prices higher than those actually paid the baker for the product. There were a few exceptions, however, where bread was sold at cost or below, doubtless as a "leader," the loss being charged to advertising account. Such a practice is illustrated by a rather extreme example given recently by the manager of a chain specialty store in an Ontario city, a store which ordinarily carries few if any lines of food products. Asked concerning the 24-ounce loaf which was being featured at 5 cents in a special one-day sale, the manager stated that his firm bought the loaf at 7 cents and sold it at 5 cents. A thousand loaves were sold, at a total loss on bread of twenty dollars, but this money was regarded as well spent since it brought many customers into the store. Such a practice, particularly on the part of a chain which carries many lines of goods and can afford to cut on one for advertising purposes, undoubtedly works an injury to the baking trade whose only or chief product is affected. The impression which is given to many is that 5 cents must be the fair price for the pound-and-a-half loaf, and that anything above that is excessive.

On the other hand, where costs of the larger bakeries appear to become unduly high, and where little evidence of price competition is apparent, an extreme form of price-cutting may serve a highly useful public purpose in forcing reductions in costs. Certainly any experiment which shows possibilities of eliminating the admitted wastes of modern distributive methods, in the bread business as in many other lines, is much needed and is certain to be welcomed.

## IX. CONCLUSION

An attempt has been made in the foregoing pages to outline what bread prices in Canada are and what they have been in recent years, to show briefly their relation to wheat and flour prices, and the increasingly important part which costs other than ingredients have come to play in determining the cost and price of the finished loaf. It is shown that in the early months of 1930 bread prices did not adequately reflect the declining prices of wheat, and that the lag in both flour and bread prices warranted both complaint and investigation. By the end of the year, however, prices of bread had come to bear the same relationship to wheat prices as they did early in 1929 when prices of both commodities were more or less stable. They should have come down, however, much sooner. The 1929 level should not be regarded as the normal level, since in the longer period 1925-1929 certain influences appear to have been effective in preventing reductions in bread prices in Canada in spite of decreasing flour prices and at a time when bread prices were coming down in other countries. Again, comparing bread prices in 1930 with prices in 1913, it has become obvious that costs other than ingredients have been responsible for the larger part of the increase of two-and-a-half cents a pound. Flour prices in December, 1930, were the same as during the year 1913. The increase in the cost of ingredients other than flour in that period amounted to only a third of a cent to the pound of bread. Contrast has been shown between British and Canadian costs and prices of bread, and some of the factors responsible for the difference have been discussed. Details have been given of the results of a chemical analysis of seventeen samples of bread. This analysis showed little or no difference in the nutritive value of the several loaves, in spite of the fact that their prices ranged from 7c. to 12c. for the 24-ounce loaf. Costs of Canadian bakers have been examined and emphasis has been laid on their high distribution costs and the extent to which the larger bakeries have been responsible for keeping them high. The report has reviewed recent tendencies toward centralization in the industry and the control which the flour milling companies have obtained over the largest of the bakeries, and over a large proportion of the bread business in Canada. Finally reference has been made to the possibilities of outside price competition developing sufficiently to give the public the protection it should have from excessive prices.

Further reference remains to be made to the effect and possible effect of combination within the industry. The difficult part in this inquiry, as in all inquiries of the kind, is to determine, on the basis of the facts available, how the public interest has been affected by combination; whether, in the words of the Combines Investigation Act, there exists a combine which has operated or is likely to operate to the detriment or against the interest of the public, whether consumers, producers or others.

It is often assumed that, in business, combination is the very antithesis of competition; that so long as competition exists, a combination of manufacturers or dealers cannot maintain excessive prices. Competition, regarded as the life of trade, is depended upon also as the public's chief measure of protection. Distinction should be made, however, between two different types of competition: the one, competition in price; the other, competition in quality, service and sales promotion. The one tends to keep costs and prices down to a minimum, the other, where it is not kept within control by price competition or some other means of regulation, has usually the opposite effect of increasing costs and prices.

Within the bread-baking industry examples of both kinds of competition are clearly seen: competition in quality, service and salesmanship more plainly in recent years, competition in price very markedly in recent months. The latter type seems to have come in part as a reaction from the other.

What the present inquiry has disclosed is that higher prices have been due not so much to combination as to this costly form of competition in quality, service and salesmanship. The additional costs have quickly become absorbed into normal costs, ultimately appearing to be as necessary as any other items of expense. Such increased costs are all but certain to lead to higher prices, and the baker's explanation of these higher prices is that they do little more than reimburse him for his actual outlays. This is the situation which has developed in the bakery trade during a period in which the public was less concerned about price than it is at present. The bakers have become engrossed in a competition which has led them into adding more and more of the expensive ingredients in order to attract business, into more elaborate delivery and other services, into selling campaigns which have for their chief object persuading potential customers to "change bakers," a service for which consumers of bread in the end have to pay.

There is no gainsaying that the consumer himself should accept a certain share of the responsibility for present-day high prices, of bread as of many other commodities. He is getting more and he is paying more for it. The acceptance of, or the demand for, extra service, extra quality and wider variety, particularly in periods of prosperity, sometimes without apparent realization that they must eventually be paid for, plays an important part in the maintenance of prices at high levels.

As to combination, the present investigation, being in the nature of a preliminary inquiry, has not been intensive enough to include examination of local price arrangements among bakers in individual towns and cities throughout the country. Rather, it has been a Dominion-wide survey, principally of costs and prices, with the view of ascertaining what influences have been affecting the spread between wheat and bread prices, and, in particular, what have been the effects of the entry of four of the largest flour milling companies into the bread-baking industry.

Since 1925 these four flour milling companies have acquired control over 96 bakeries operating from Nova Scotia to British Columbia, which now produce over a third of the bread sold in the Dominion and over ninety per cent of the bread sold in the localities in which they operate. In most instances these bakeries were going concerns. Many of them had been engaged, even before they were acquired, in the highly expensive sales campaigns above referred to. These campaigns have not been introduced, therefore, as a result of the new control, but on the other hand it is not apparent that the new control has thus far been followed by reduced selling costs.

Nor have the *flour* costs of these mill-controlled bakeries been reduced as a result of the new relationship. One would expect that a chain bakery using several thousand barrels a month would buy flour from its parent milling company at prices far below those of small competitors using less than a carload a month. The returns received from both types of bakery, however, for 1930 as well as 1929, show that in many instances the small bakery (purchasing now from one milling company, now from another, frequently from the smaller mills) has been outbuying his large-scale competitor, whose purchases are naturally confined to the one large flour milling company.

If it were not for other price competition beyond its control, a combination of this type and size might affect prices to the disadvantage of the public. The chief possibilities of such disadvantage lie in the direction of price agreements among the mill-controlled groups, of continued costly sales competition, and of the dictation of the prices charged by independent bakeries. The power of the mill bakeries over independents is greatly augmented by their ability to suffer heavy losses in one community where it might be considered desirable to

eliminate competition by means of a price war. These, however, are only possibilities. It may be that "the sight of means to do ill deeds" will not make ill deeds done; it may be that the possibilities for good outweigh those for ill. It seems likely also that the development of the newer forms of price competition will continue to be effective in preventing undue advantage being taken of the public. That there is such price competition is evidenced by the substantial reductions in price which have occurred within recent months. Chain store competition, even though much of it has been below cost, supplemented by the competition of smaller low-cost bakeries all over the country, has made itself felt. The small capital required to operate small bakeries and the short time within which they can be brought into operation is a public safeguard of some importance. There is also the corrective influence of the existence of the smaller flour mills, and the additional possibility of bread being baked at home in the event of bakers' prices going beyond what are considered reasonable limits. Modern living conditions, however, have lessened the importance of this as a competitive factor.

Apparently the situation has been taking care of itself, and can continue to take care of itself so long as these factors, actual and potential, remain in existence. If they continue to be as effective as they have been (and there seems to be no reason to believe that they will not) the public as well as the industry will be the better off, having such problems solved without the necessity of governmental intervention.

The present investigation, as already indicated, has not included inquiry into possible arrangements among local bakers in individual centres. So far as the situation throughout the Dominion is concerned, it has not disclosed a combination which has operated or is likely to operate to the detriment or against the interest of the public. Particular attention has been given in the inquiry to the vertical combination effected through the entry of certain flour milling companies into the bread-baking industry. No conclusive evidence has been adduced to show that this combination constitutes a combine within the meaning of the Combines Investigation Act. At the same time, the predominant position of these flour milling companies in the baking industry, and the possibilities of monopoly and price enhancement which are theirs, are such as to warrant continued governmental interest in the situation, and, should the need arise, further governmental action on behalf of the consuming public.

Yours faithfully,

(Signed) F. A. McGREGOR,

*Registrar, Combines Investigation Act.*

## APPENDIX A

TABLE OF WHOLESALE PRICES OF WHEAT IN CANADA, 1913-1930

No. 1 MANITOBA NORTHERN

Average Price per bushel (60 lbs.), Fort William and Port Arthur basis, monthly

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1913.....	0.82	0.84	0.85	0.90	0.94	0.97	0.97	0.95	0.87	0.80	0.83	0.83	0.88
1914.....	0.85	0.89	0.90	0.94	0.93	0.90	1.08	1.10	1.13	1.19	1.19	1.00	
1915.....	1.33	1.53	1.49	1.57	1.57	1.25	1.35	1.19	0.94	0.97	1.03	1.12	1.28
1916.....	1.20	1.19	1.10	1.15	1.16	1.10	1.19	1.49	1.61	1.74	1.96	1.76	1.38
1917.....	1.78	1.71	1.87	2.28	2.73	2.51	2.34	2.40	2.22	2.21	2.21	2.21	12.20
1918.....	2.21	2.21	2.21	2.21	2.21	2.21	2.21	2.22	2.25	2.25	2.25	2.25	12.22
1919.....	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.22	2.30	2.30	2.30	2.30	22.26
1920.....	2.80	2.80	2.80	3.15	3.15	3.15	2.94	2.74	2.31	2.06	2.11	2.11	22.73
1921.....	1.95	1.87	1.91	1.77	1.87	1.89	1.80	1.82	1.48	1.17	1.13	1.14	1.65
1922.....	1.15	1.34	1.41	1.43	1.44	1.33	1.36	1.18	1.00	1.01	1.10	1.09	1.24
1923.....	1.08	1.11	1.13	1.21	1.17	1.15	1.08	1.13	1.06	1.00	0.97	0.93	1.08
1924.....	0.97	1.00	0.98	0.98	1.04	1.14	1.35	1.44	1.42	1.60	1.64	1.73	1.27
1925.....	1.96	1.96	1.76	1.56	1.82	1.71	1.62	1.67	1.38	1.27	1.42	1.57	1.64
1926.....	1.56	1.55	1.48	1.57	1.54	1.53	1.59	1.51	1.44	1.44	1.41	1.33	1.50
1927.....	1.36	1.40	1.43	1.45	1.56	1.61	1.62	1.60	1.45	1.44	1.45	1.40	1.48
1928.....	1.43	1.42	1.48	1.57	1.57	1.43	1.31	1.19	1.17	1.24	1.21	1.17	1.35
1929.....	1.21	1.28	1.27	1.23	1.13	1.18	1.60	1.58	1.50	1.41	1.33	1.38	1.34
1930.....	1.30	1.17	1.06	1.10	1.08	1.03	0.95	0.92	0.78	0.73	0.64	0.56	0.94

SOURCE: Dominion Bureau of Statistics.

<sup>1</sup> See footnotes on page 49.

## APPENDIX B

TABLE OF WHOLESALE PRICES OF FLOUR IN CANADA, 1913-1930

MANITOBA, SECOND PATENT

Average price per two 98 lb. jute bags car lots, delivered Montreal rate points, monthly

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1913.....	4.80	4.80	4.80	4.80	4.80	5.00	5.00	5.00	5.00	4.80	4.80	4.80	4.87
1914.....	4.80	4.80	5.00	5.00	5.00	5.00	5.00	5.30	6.10	6.10	6.10	5.36	
1915.....	6.60	7.20	7.20	7.40	7.60	7.10	6.50	6.50	5.75	5.25	5.35	5.70	6.52
1916.....	6.50	6.70	6.30	6.30	6.20	6.00	6.00	6.60	8.10	8.80	9.70	9.40	7.22
1917.....	9.20	9.00	9.20	9.80	12.70	12.50	11.90	11.90	11.40	11.40	11.40	11.40	10.98
1918.....	11.10 <sup>1</sup>	11.10 <sup>1</sup>	11.10 <sup>1</sup>	10.95 <sup>1</sup>	11.50 <sup>1</sup>	11.50 <sup>1</sup>	11.50 <sup>1</sup>	11.50 <sup>1</sup>	11.6 <sup>1</sup>				
1919.....	11.15 <sup>1</sup>	10.90 <sup>1</sup>	10.92 <sup>1</sup>										
1920.....	13.15 <sup>1</sup>	13.15 <sup>1</sup>	13.15 <sup>1</sup>	13.30 <sup>1</sup>	14.75 <sup>1</sup>	14.75 <sup>1</sup>	14.75 <sup>1</sup>	14.75 <sup>1</sup>	13.50	12.50	11.70	10.60	13.34 <sup>1</sup>
1921.....	10.40	10.20	10.00	9.50	10.00	10.00	10.00	10.00	9.00	7.60	6.90	7.00	9.22
1922.....	7.00	7.50	8.00	8.00	8.00	7.30	7.30	7.30	6.30	6.00	6.50	6.60	7.15
1923.....	6.60	6.60	6.60	6.80	6.80	6.40	6.40	6.40	6.40	6.00	5.80	5.60	6.37
1924.....	5.70	5.80	5.80	5.60	5.60	6.15	6.90	7.70	7.30	8.55	8.70	9.00	6.90
1925.....	10.10	10.20	9.70	8.45	9.30	9.52	8.60	8.76	8.15	7.50	7.61	8.70	8.92
1926.....	8.64	8.55	8.13	8.31	8.50	8.23	8.41	8.30	7.79	7.71	7.50	7.43	8.32
1927.....	7.46	7.60	7.48	7.53	8.08	8.44	8.44	8.22	7.65	7.34	7.42	7.45	7.74
1928.....	7.31	7.27	7.30	7.83	7.88	7.46	7.21	6.97	6.69	6.81	6.77	6.60	7.17
1929.....	6.63	6.90	7.00	6.76	6.59	6.63	7.91	8.18	8.00	7.80	7.70	7.90	7.83
1930.....	7.95	7.32	7.33	7.30	7.12	6.63	6.23	6.15	5.57	5.43	5.13	4.76	6.41

Source: Dominion Bureau of Statistics.

<sup>1</sup> Government Standard flour converted to Second Patent prices (1918, 1919, and Jan. to Aug., 1920).

## APPENDIX C

TABLE OF RETAIL PRICES OF BREAD IN CANADA, 1913-1930

Average retail price per pound of white bread for 69 localities<sup>3</sup>.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	c.	c.	c.	c.	c.	c.	c.	c.	c.	c.	c.	c.	c.
1913	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
1914	4.3	4.2	4.3	4.3	4.3	4.3	4.2	4.3	4.4	4.5	4.4	4.5	4.3
1915	4.5	4.7	4.8	4.8	4.9	4.9	4.9	4.9	4.6	4.4	4.4	4.4	4.7
1916	4.4	4.5	4.6	4.6	4.7	4.7	4.7	4.9	5.2	5.6	5.8	6.1	5.0
1917	6.1	6.1	6.0	6.2	7.4	7.4	7.4	7.3	7.3	7.5	7.5	7.5	7.0
1918	7.6	7.5	7.6	7.8	7.8	7.8	7.8	7.8	7.8	7.9	7.9	7.9	7.8
1919	8.0	7.9	7.9	7.8	7.8	7.9	8.0	7.9	7.9	7.9	7.9	7.9	7.9
1920	8.1	9.1	9.1	9.1	9.2	9.6	9.6	9.7	9.7	9.6	9.4	8.9	9.3
1921	8.8	8.5	8.5	8.5	8.3	8.2	8.1	8.1	8.1	7.9	7.3	7.1	8.1
1922	7.0	7.0	7.0	7.0	7.0	6.9	7.0	7.0	6.9	6.8	6.7	6.7	6.9
1923	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.7	6.8	6.8	6.8	6.7	6.7
1924	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.9	7.1	7.1	7.3	7.4	6.9
1925	7.5	7.9	8.0	7.9	7.9	7.9	7.9	7.8	7.9	7.8	7.7	7.6	7.8
1926	7.7	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
1927	7.6	7.6	7.6	7.6	7.6	7.7	7.8	7.8	7.8	7.8	7.7	7.7	7.7
1928	7.7	7.7	7.7	7.7	7.7	7.7	7.8	7.7	7.7	7.7	7.7	7.7	7.7
1929	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.8	7.9	8.0	7.9	7.9	7.8
1930	7.8	7.8	7.8	7.7	7.7	7.7	7.6	7.5	7.4	7.1	6.9	6.6	7.5

SOURCE: Department of Labour, Canada, in "Labour Gazette", monthly.

<sup>1</sup> From mid-July, 1917, until August, 1919, prices were fixed by the Board of Grain Supervisors of Canada.<sup>2</sup> The quotations from September, 1919, to August, 1920, (both months inclusive) represent the prices paid by the flour millers for wheat, but not the price received by the producer. During this period the Canadian Wheat Board set the prices which the millers paid for wheat as follows: September-December, 1919, \$2.30; January-April, 1920, \$2.80; May-August 15, 1920, \$3.15.

During the same period the producers of wheat received an initial payment of \$2.15 per bushel, plus a dividend on participation certificates issued by the Wheat Board. Based on initial payments only, the average price was \$2.21 for 1919 and \$2.21 for 1920. Based on the total amounts received by producers, including dividends on participation certificates, the average was \$2.37 for 1919 and \$2.51 for 1920.

<sup>3</sup> For 15th of each month up to 1920, for 1st of each month after December 31, 1920.

## APPENDIX D

TABLE OF WHOLESALE PRICES OF WHEAT IN THE UNITED KINGDOM, 1913-1930

BRITISH-GROWN

Average price per bushel (60 lbs.), monthly

—	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1913.....	0 93	0 94	0 95	0 96	0 99	1 00	1 02	1 03	0 96	0 94	0 92	0 95	0 96
1914.....	0 94	0 94	0 95	0 96	0 99	1 04	1 04	1 14	1 14	1 13	1 23	1 29	1 07
1915.....	1 48	1 67	1 66	1 68	1 85	1 75	1 57	1 35	1 33	1 47	1 62	1 63	1 61
1916.....	1 72	1 76	1 76	1 64	1 53	1 50	1 74	1 80	1 84	2 11	2 23	1 78	
1917.....	2 31	2 40	2 41	2 55	2 37	2 38	2 39	2 37	2 16	2 15	2 14	2 16	2 31
1918.....	2 16	2 19	2 20	2 23	2 23	2 25	2 26	2 27	2 20	2 21	2 20	2 12	2 22
1919.....	2 20	2 21	2 21	2 22	2 22	2 23	2 23	2 23	2 23	2 22	2 21	2 21	2 22
1920.....	2 21	2 21	2 21	2 21	2 26	2 58	2 71	2 75	2 76	2 75	2 67	2 46	
1921.....	2 59	2 40	2 53	2 68	2 65	2 71	2 57	2 07	1 79	1 55	1 37	1 39	2 19
1922.....	1 38	1 45	1 61	1 56	1 66	1 66	1 62	1 60	1 21	1 21	1 29	1 27	1 46
1923.....	1 27	1 24	1 23	1 29	1 41	1 42	1 47	1 35	1 17	1 16	1 21	1 27	1 29
1924.....	1 28	1 39	1 41	1 38	1 42	1 47	1 56	1 66	1 58	1 63	1 65	1 60	1 50
1925.....	1 69	1 78	1 73	1 60	1 65	1 67	1 55	1 53	1 50	1 37	1 46	1 60	1 59
1926.....	1 60	1 54	1 51	1 06	1 74	1 77	1 83	1 77	1 47	1 48	1 22	1 55	1 54
1927.....	1 54	1 54	1 52	1 50	1 58	1 66	1 64	1 68	1 45	1 37	1 33	1 60	1 53
1928.....	1 29	1 25	1 27	1 34	1 45	1 43	1 42	1 36	1 21	1 24	1 29	1 26	1 32
1929.....	1 25	1 28	1 27	1 28	1 29	1 26	1 36	1 52	1 29	1 24	1 22	1 24	1 29
1930.....	1 24	1 15	1 08	1 13	1 14	1 11	1 09	1 09	0 95	0 91	0 87	0 79	1 05

Source: Dominion Bureau of Statistics (from "London Gazette," published pursuant to the Corn Returns Act, 1882, and the Corn Sales Act, 1921).

## APPENDIX E

TABLE OF WHOLESALE PRICES OF FLOUR IN THE UNITED KINGDOM, 1913-1930

Average price per 196 lbs., monthly

—	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1913.....	4 92 <sup>1</sup>	5 08	5 00	5 07	5 15	5 10	5 09	5 00	4 87	4 85	4 85	4 76	4 98
1914.....	4 76	4 76	4 83	4 78	4 83	4 91	4 80	5 87	6 29	6 08	6 42	6 69	5 42
1915.....	7 53	8 85	8 80	7 72	9 12	8 33	7 48	7 65	7 36	7 52	7 87	8 21	8 12
1916.....	8 74	9 14	8 93	8 44	8 25	7 61	7 65	9 31	9 42	9 78	10 12	10 04	8 95
1917.....	10 12	9 91	10 17	10 46	10 46	10 46	10 19 <sup>2</sup>	8 87	7 53	7 53	7 53	7 53	9 38
1918.....	7 53	7 53	7 43	7 53	7 53	7 53	7 53	7 53	7 53	7 53	7 53	7 53	7 53
1919.....	7 53	7 64	7 53	7 53	7 53	7 53	7 53	7 53	7 53	7 53	7 53	7 53	7 54
1920.....	7 53	7 53	9 16	10 80	10 80	10 80	10 80	10 80	10 80	14 63	14 63	13 91	11 11
1921.....	13 44	12 08	11 57	11 57	11 57	11 74	11 33	10 93	10 42	9 78	8 87	7 89	10 93
1922.....	7 27	8 04	8 68	8 20	8 25	7 65	7 55	7 44	6 84	7 02	7 06	6 91	7 58
1923.....	6 80	6 68	6 67	6 80	6 85	6 67	6 63	6 46	6 29	6 25	6 19	6 21	6 54
1924.....	6 36	6 53	6 33	6 12	6 29	6 57	7 19	7 81	7 99	8 63	8 45	8 55	7 23
1925.....	9 27	9 70	9 19	8 27	8 47	8 51	7 76	8 01	7 87	6 97 <sup>4</sup>	7 57	8 25	8 32
1926.....	8 20	8 08	7 53	8 10	8 39	8 51	8 40	8 25	7 71	8 03	8 06	7 74	8 08
1927.....	7 42	7 44	7 36	7 35	7 65	7 95	7 59	7 48	7 31	7 20	7 08	7 03	7 40
1928.....	6 87	6 83	6 92	7 23	7 44	7 01	6 80	6 21	5 89	6 04	6 21	6 06	6 63
1929.....	5 95	6 34	6 24	6 04	5 66	5 45	6 70	7 12	7 70	6 41	6 30	6 72	6 39
1930.....	6 76	6 32	5 73	5 91	5 77	5 93	5 49	5 06	4 58	4 40	4 13	5 46	

Source: Dominion Bureau of Statistics.

<sup>1</sup> Town households. <sup>2</sup> Country Straights. <sup>3</sup> G.R. ex mill. <sup>4</sup> London standard ex mill.

## APPENDIX F

TABLE OF RETAIL PRICES OF BREAD IN THE UNITED KINGDOM, 1913-1930

Average price on the 1st of each month, per pound of bread

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
													c.
1913.....	2 90	2 90	2 90	2 90	2 90	2 90	2 90	2 90	2 90	2 90	2 90	2 85	2 90
1914.....	2 85	2 85	2 85	2 80	2 80	2 80	2 80	2 85	3 05	3 05	3 10	3 20	2 92
1915.....	3 30	3 63	3 88	4 00	4 13	4 25	4 00	4 00	4 00	3 88	3 88	4 00	3 91
1916.....	4 13	4 38	4 50	4 38	4 38	4 13	4 13	4 50	4 63	4 75	5 00	4 44	
1917.....	5 13	5 13	5 25	5 63	5 75	5 75	5 75	5 75	4 50 <sup>1</sup>	4 50	4 50	4 50	5 28
1918.....	4 50 <sup>1</sup>	4 50											
1919.....	4 50 <sup>1</sup>	4 50 <sup>1</sup>	4 50 <sup>1</sup>	4 50 <sup>1</sup>	4 50	4 50	4 50	4 50	4 63	4 75	4 75	4 75	4 56
1920.....	4 75	4 75	4 75	4 75	6 25	6 25	6 38	6 38	6 38	6 38	8 00	8 00	6 09
1921.....	7 88	7 63	6 88	6 75	6 75	6 75	6 75	6 75	6 63	6 25	5 75	5 25	6 67
1922.....	5 00	4 75	5 00	5 13	5 13	5 13	5 00	5 00	4 88	4 75	4 63	4 63	4 92
1923.....	4 50	4 50	4 50	4 50	4 50	4 50	4 50	4 50	4 38	4 38	4 25	4 25	4 43
1924.....	4 25	4 25	4 25	4 25	4 25	4 25	4 25	4 25	4 63	4 75	4 88	5 00	5 13
1925.....	5 13	5 25	5 50	5 38	5 25	5 25	5 25	5 13	5 13	4 88	4 63	4 75	5 13
1926.....	4 88	5 00	5 00	4 88	4 88	5 00	5 00	5 00	5 00	5 00	5 00	5 00	4 97
1927.....	5 00	4 88	4 88	4 75	4 75	4 88	4 88	4 88	4 88	4 75	4 75	4 75	4 84
1928.....	4 75	4 75	4 63	4 63	4 63	4 63	4 63	4 63	4 38	4 25	4 25	4 25	4 53
1929.....	4 25	4 25	4 25	4 25	4 25	4 25	4 25	4 50	4 63	4 63	4 50	4 50	4 38
1930.....	4 50	4 63	4 50	4 25	4 38	4 38	4 38	4 25	4 25	4 13	4 00	3 75	4 28

Source: Ministry of Labour, United Kingdom (in d. per 4 lb. loaf).

<sup>1</sup> For the period December, 1917, to March, 1919, quotations are not printed in the monthly Ministry of Labour Gazette. Its issue of January, 1919, p. 4, states "the average prices of flour and bread remained almost unchanged throughout 1918. at about 1s. 4d. per 7 lbs. of flour and 9d. per 4 lbs. of bread, for cash over the counter."

## APPENDIX G

TABLE OF WHOLESALE PRICES OF WHEAT IN UNITED STATES, 1913-1930

No. 2 RED WINTER, CASH, CHICAGO

Average price per bushel (60 lbs.) monthly

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1913.....													0.99
1914.....	0.97	0.96	0.95	0.94	0.98	0.89	0.82	0.96	1.11	1.11	1.15	1.20	1.01
1915.....	1.39	1.61	1.53	1.59	1.57	1.23	1.16	1.10	1.08	1.13	1.12	1.23	1.31
1916.....	1.29	1.26	1.13	1.22	1.16	1.04	1.16	1.47	1.53	1.68	1.81	1.73	1.35
1917.....	1.90	1.80	1.98	2.47	2.97	2.64	2.33	2.26	2.18	2.17	2.17	2.17	2.28
1918.....	2.17	2.17	2.17	2.17	2.17	2.17	2.25	2.23	2.24	2.24	2.24	2.31	2.21
1919.....	2.38	2.35	2.36	2.63	2.78	2.36	2.26	2.24	2.24	2.24	2.29	2.45	2.36
1920.....	2.63	2.49	2.50	2.77	2.98	2.90	2.81	2.47	2.49	2.21	2.06	2.01	2.52
1921.....	1.96	1.92	1.68	1.39	1.57	1.44	1.23	1.24	1.28	1.19	1.18	1.18	1.44
1922.....	1.20	1.38	1.36	1.39	1.37	1.16	1.15	1.06	1.07	1.18	1.27	1.33	1.24
1923.....	1.26	1.36	1.32	1.32	1.29	1.19	1.01	1.02	1.05	1.10	1.06	1.08	1.17
1924.....	1.11	1.23	1.09	1.04	1.07	1.12	1.25	1.32	1.34	1.53	1.57	1.77	1.28
1925.....	2.01	1.98	1.77	1.70	1.89	1.82	1.59	1.68	1.67	1.64	1.71	1.80	1.77
1926.....	1.87	1.85	1.68	1.69	1.66	1.48	1.44	1.37	1.36	1.40	1.55	1.40	1.54
1927.....	1.37	1.37	1.34	1.34	1.44	1.45	1.43	1.40	1.32	1.34	1.35	1.38	1.38
1928.....	1.43	1.54	1.62	1.81	1.90	1.65	1.52	1.33	1.40	1.44	1.35	1.41	1.54
1929.....	1.41	1.45	1.34	1.27	1.19	1.22	1.33	1.27	1.31	1.29	1.23	1.30	1.30
1930.....	1.27	1.18	1.10	1.10	1.09	1.01	0.89	0.90	0.87	0.85	0.77	0.82	0.99

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor.

## APPENDIX H

TABLE OF WHOLESALE PRICES OF FLOUR IN UNITED STATES, 1913-1930

SECOND PATENTS, MINNEAPOLIS

Average price per barrel (196 lbs.), monthly

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1913.....													4.42
1914.....	4.36	4.44	4.47	4.40	4.46	4.34	4.44	5.33	5.75	5.60	5.73	5.80	4.94
1915.....	6.69	7.56	7.34	7.56	7.72	6.44	6.88	6.16	5.17	5.33	6.07	6.50	
1916.....	6.49	6.28	5.73	6.07	6.04	5.58	5.96	7.39	8.28	9.06	9.64	8.48	7.09
1917.....	9.04	8.89	9.41	11.43	14.68	13.66	12.60	12.94	11.10	10.35	9.94	9.98	11.23
1918.....	11.09	10.30	10.09	19.99	19.53	19.83	11.70	10.21	10.21	10.21	10.21	10.21	10.14
1919.....	2	2	2	2	12.04	11.49	11.67	11.26	11.21	11.67	12.58	13.51	11.98
1920.....	13.97	12.97	12.69	13.75	14.54	13.82	13.32	11.86	12.24	10.89	9.06	8.53	12.27
1921.....	9.30	8.84	8.31	7.63	8.37	8.69	8.61	7.81	7.93	7.04	6.81	6.51	7.97
1922.....	6.63	7.60	7.44	7.75	7.68	7.18	7.44	6.71	6.10	6.17	6.43	6.58	6.96
1923.....	6.37	6.51	6.40	6.73	6.51	6.11	5.87	5.98	6.04	6.03	5.85	5.91	6.19
1924.....	6.02	6.09	6.05	6.13	6.37	6.61	7.23	7.24	7.22	7.79	7.88	8.61	6.94
1925.....	9.41	9.60	8.74	7.95	8.52	8.29	8.31	8.54	8.05	8.02	8.25	8.92	8.54
1926.....	9.14	8.83	8.48	8.42	8.19	8.42	8.67	7.68	7.45	7.71	7.53	7.38	8.15
1927.....	7.14	7.13	7.09	6.97	7.56	7.63	7.56	7.32	6.82	6.95	6.84	6.86	7.16
1928.....	7.11	7.02	7.16	7.84	8.14	7.63	7.07	6.31	6.16	5.94	5.91	6.90	
1929.....	6.11	6.51	6.41	6.24	5.86	6.12	7.41	7.03	6.94	6.64	6.40	6.53	6.52
1930.....	6.48	6.10	5.98	5.79	5.71	5.56	5.21	5.08	4.81	4.71	4.39	4.51	5.36

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor.

1 United States Food Administration Standard.

2 No quotation.

## APPENDIX I

TABLE OF RETAIL PRICES OF BREAD IN UNITED STATES, 1913-1930

Average retail price per lb. of white bread for 51 cities, on 15th of each month

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	c.	c.	c.	c.	c.	c.	c.	c.	c.	c.	c.	c.	c.
1913.....	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.60
1914.....	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.4	6.4	6.4	6.5	6.28
1915.....	6.8	7.1	7.1	7.1	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.9	7.04
1916.....	7.0	7.0	7.2	7.0	7.0	7.0	7.1	7.1	7.7	8.1	8.4	7.8	7.36
1917.....	7.9	8.0	8.1	8.4	9.6	9.6	9.9	10.2	9.9	9.9	9.9	9.3	9.23
1918.....	9.4	9.5	9.6	9.8	9.9	10.0	10.0	9.9	9.9	9.8	9.8	9.8	9.78
1919.....	9.8	9.8	9.8	9.8	9.8	9.9	10.0	10.1	10.1	10.1	10.2	10.2	9.96
1920.....	10.9	11.1	11.2	11.2	11.5	11.8	11.9	11.9	11.9	11.8	11.6	10.8	11.47
1921.....	10.8	10.6	10.5	10.3	9.9	9.8	9.7	9.7	9.6	9.5	9.3	9.1	9.90
1922.....	8.8	8.6	8.7	8.7	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.6	8.72
1923.....	8.7	8.7	8.7	8.7	8.7	8.7	8.8	8.7	8.7	8.7	8.7	8.7	8.71
1924.....	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.8	8.8	8.8	8.9	8.9	8.76
1925.....	9.2	9.5	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.39
1926.....	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.40
1927.....	9.4	9.4	9.4	9.4	9.4	9.3	9.3	9.3	9.3	9.3	9.3	9.2	9.33
1928.....	9.2	9.2	9.1	9.1	9.1	9.2	9.2	9.2	9.1	9.1	9.1	9.0	9.13
1929.....	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	8.9	8.9	8.9	8.98
1930.....	8.9	8.8	8.8	8.8	8.8	8.8	8.8	8.7	8.7	8.6	8.5	8.5	8.73

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor.

## APPENDIX J

TABLE OF BREAD PRICES BY LOCALITIES AND PROVINCES.

	1900	1905	1910	1911	1912	1913	1914	1915	1916	1917
	c.									
<b>Dominion (average).....</b>	<b>3.7</b>	<b>3.9</b>	<b>4.4</b>	<b>4.3</b>	<b>4.0</b>	<b>4.2</b>	<b>4.3</b>	<b>4.7</b>	<b>5.0</b>	<b>6.9</b>
<b>Nova Scotia (average).....</b>	<b>4.9</b>	<b>4.7</b>	<b>5.0</b>	<b>4.9</b>	<b>4.8</b>	<b>4.8</b>	<b>4.8</b>	<b>5.1</b>	<b>5.6</b>	<b>7.5</b>
1—Sydney.....	6.0	6.0	6.0	5.5	5.0	5.0	5.0	5.3	6.2	9.0
2—New Glasgow.....	4.0	4.0	4.6	4.6	4.6	4.6	4.6	5.2	5.5	6.4
3—Amherst.....	4.0	4.8	4.8	4.8	4.8	4.8	4.8	4.7	5.4	7.2
4—Halifax.....	3.6	4.0	4.6	4.6	4.6	4.6	4.6	5.1	5.5	7.4
5—Windsor.....	—	—	—	—	—	—	—	—	—	—
6—Truro.....	4.0	4.0	—	—	—	4.4	4.6	5.1	5.6	7.4
7—P.E.I.—Charlottetown.....	—	—	3.5	3.5	3.6	3.8	4.0	4.0	4.1	5.2
<b>New Brunswick (average).....</b>	<b>3.6</b>	<b>3.6</b>	<b>4.1</b>	<b>4.4</b>	<b>4.6</b>	<b>4.3</b>	<b>4.5</b>	<b>5.0</b>	<b>5.7</b>	<b>7.4</b>
8—Moncton.....	3.5	3.5	4.0	4.0	4.0	4.0	4.0	4.4	5.8	7.6
9—St. John.....	3.5	3.5	5.1	5.3	5.3	5.3	5.3	5.8	6.1	7.6
10—Fredericton.....	4.0	4.0	—	—	4.0	4.0	4.2	4.8	5.4	7.6
11—Bathurst.....	—	—	—	—	—	—	—	—	—	—
<b>Quebec (average).....</b>	<b>3.3</b>	<b>3.5</b>	<b>3.5</b>	<b>3.5</b>	<b>3.5</b>	<b>3.7</b>	<b>3.7</b>	<b>3.9</b>	<b>4.3</b>	<b>6.1</b>
12—Quebec.....	2.6	3.0	3.3	3.3	3.3	3.3	3.3	3.4	3.8	6.3
13—Three Rivers.....	2.6	3.0	3.2	3.0	3.3	3.6	4.0	4.1	4.5	5.6
14—Sherbrooke.....	—	—	5.0	5.0	5.0	5.0	5.0	5.0	5.1	7.6
15—Sorel.....	2.6	2.6	3.0	3.0	3.1	3.2	2.9	3.6	3.9	5.8
16—St. Hyacinthe.....	3.3	3.1	3.0	2.9	2.8	2.8	2.9	3.2	3.7	6.0
17—St. John's.....	3.1	3.1	3.2	3.2	3.0	3.5	2.8	3.3	3.4	4.0
18—Theftord Mines.....	—	—	—	—	—	—	—	—	—	—
19—Montreal.....	4.6	5.1	4.6	4.6	4.6	4.6	5.1	5.3	5.6	7.2
20—Hull.....	2.5	2.5	3.3	3.3	3.3	3.3	3.5	3.9	4.2	5.7
<b>Ontario (average).....</b>	<b>3.2</b>	<b>3.3</b>	<b>3.8</b>	<b>3.7</b>	<b>3.7</b>	<b>3.8</b>	<b>3.9</b>	<b>4.3</b>	<b>4.7</b>	<b>6.7</b>
21—Ottawa.....	3.3	3.3	3.2	3.2	3.1	3.4	3.9	4.4	4.7	6.4
22—Brookville.....	3.3	3.3	—	—	4.0	4.0	3.7	4.4	4.1	6.4
23—Kingston.....	2.5	2.5	3.6	3.3	3.6	4.0	4.0	4.2	4.4	6.0
24—Belleville.....	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.9	3.8	5.7
25—Peterborough.....	2.5	2.5	3.3	3.3	3.3	3.3	3.6	4.0	4.3	6.2
26—Oshawa.....	—	—	—	—	—	—	—	—	—	—
27—Orillia.....	3.3	3.3	—	—	3.8	3.3	3.3	4.4	4.7	6.6
28—Toronto.....	3.3	3.3	3.3	3.1	3.3	3.3	3.6	3.7	4.6	6.6
29—Niagara Falls.....	—	—	4.0	4.0	4.0	4.0	4.0	4.3	4.9	7.1
30—St. Catharines.....	—	—	3.8	4.0	4.0	4.0	4.0	4.0	4.8	6.9
31—Hamilton.....	2.5	2.5	3.6	3.5	3.3	3.8	3.5	4.2	4.7	6.8
32—Brantford.....	2.5	2.5	3.3	3.3	3.3	3.3	3.3	4.0	4.2	6.2
33—Galt.....	—	—	—	—	—	—	—	4.4	4.3	6.8
34—Guelph.....	3.3	3.6	3.9	4.0	4.0	4.0	4.0	4.2	4.6	6.6
35—Kitchener.....	3.3	3.3	3.5	4.0	3.2	3.0	4.0	4.4	4.6	6.6
36—Woodstock.....	3.3	3.3	3.0	3.0	3.0	3.0	4.0	4.1	4.5	6.4
37—Stratford.....	3.0	3.3	4.0	3.9	2.9	3.2	3.6	4.0	4.6	6.6
38—London.....	2.5	2.5	3.9	3.6	4.0	4.0	4.0	4.4	4.7	6.7
39—St. Thomas.....	2.5	2.5	3.7	3.3	3.3	3.3	3.6	4.6	4.7	6.8
40—Chatham.....	2.6	2.5	4.2	3.9	4.0	3.8	3.4	4.4	4.6	6.2
41—Windsor.....	3.3	3.3	3.6	3.9	4.0	4.0	4.1	4.5	4.7	6.7
42—Sarnia.....	—	—	—	—	—	—	—	—	—	—
43—Owen Sound.....	—	—	—	—	4.0	4.0	4.0	4.0	4.4	6.2
44—North Bay.....	—	—	—	—	—	—	—	—	—	—
45— Sudbury.....	—	—	—	—	—	—	—	—	—	—
46—Cobalt.....	—	—	—	—	3.8	3.3	3.6	3.6	6.6	8.1
47—Timmins.....	—	—	—	—	—	—	—	—	—	—
48—Sault Ste. Marie.....	—	—	4.5	4.0	4.6	4.6	4.9	5.3	5.6	7.2
49—Port Arthur.....	—	—	4.0	4.0	5.0	5.3	5.5	5.4	5.6	7.8
50—Fort William.....	—	—	4.6	4.6	5.0	5.3	5.5	5.3	5.6	7.7
<b>Manitoba (average).....</b>	<b>5.0</b>	<b>4.0</b>	<b>4.5</b>	<b>4.5</b>	<b>4.5</b>	<b>4.4</b>	<b>4.3</b>	<b>4.8</b>	<b>4.9</b>	<b>6.5</b>
51—Winnipeg.....	—	—	5.0	5.0	5.0	5.0	5.0	5.4	5.4	6.1
52—Brandon.....	5.0	4.0	4.0	4.0	4.0	3.9	3.6	4.1	4.4	7.0
<b>Saskatchewan (average).....</b>	<b>6.6</b>	<b>6.4</b>	<b>5.7</b>	<b>4.0</b>	<b>4.2</b>	<b>4.5</b>	<b>4.0</b>	<b>5.5</b>	<b>5.1</b>	<b>6.7</b>
53—Regina.....	6.6	6.6	5.3	4.0	4.1	4.4	4.1	4.8	5.3	7.4
54—Prince Albert.....	—	—	—	—	4.2	4.2	4.2	4.3	4.9	6.4
55—Saskatoon.....	—	6.3	—	—	5.7	6.0	3.8	6.6	4.6	6.4
56—Moose Jaw.....	—	—	6.2	—	4.1	4.5	5.0	5.8	5.4	6.7
<b>Alberta (average).....</b>	<b>3.7</b>	<b>4.8</b>	<b>5.3</b>	<b>5.1</b>	<b>4.6</b>	<b>5.2</b>	<b>4.8</b>	<b>5.4</b>	<b>5.2</b>	<b>6.9</b>
57—Medicine Hat.....	—	5.0	—	—	6.0	6.0	4.8	6.9	6.0	6.7
58—Drumheller.....	—	—	—	—	—	—	—	—	—	—
59—Edmonton.....	2.5	4.6	4.8	5.0	5.0	5.0	4.7	4.5	4.5	6.2
60—Calgary.....	—	—	5.6	4.6	3.4	5.7	4.6	4.6	4.7	6.7
61—Lethbridge.....	5.0	5.0	5.0	4.9	5.5	5.0	5.7	5.7	5.7	8.3
<b>British Columbia (average).....</b>	<b>4.4</b>	<b>4.6</b>	<b>5.7</b>	<b>5.7</b>	<b>5.3</b>	<b>5.1</b>	<b>5.6</b>	<b>5.7</b>	<b>6.2</b>	<b>8.7</b>
62—Fernie.....	—	—	—	—	—	—	—	6.1	6.6	8.0
63—Nelson.....	5.0	5.0	6.3	6.3	4.7	4.2	6.3	6.3	6.8	8.3
64—Trail.....	—	—	—	—	—	—	—	—	—	—
65—New Westminster.....	5.0	6.0	6.6	6.5	5.1	5.0	6.3	5.6	5.8	9.2
66—Vancouver.....	4.0	4.0	5.1	5.0	—	5.8	5.1	5.0	6.2	9.2
67—Victoria.....	5.0	5.0	6.3	6.3	6.3	6.3	6.3	5.8	5.9	8.6
68—Nanaimo.....	3.3	3.3	4.2	4.2	4.2	4.2	4.2	5.6	5.7	8.9
69—Prince Rupert.....	—	—	—	—	6.3	—	7.3	6.9	6.1	—

SOURCE: Department of Labour, Ottawa

<sup>1</sup> White bread, retail price per pound at the beginning of each month (at the 15th of each month prior to 1920). In 1913 reports were obtained from 56 localities; the number was gradually increased until 1925, when it reached the present number of 69.

## APPENDIX J

CANADA, RETAIL, PER POUND, YEARLY 1900, 1905, 1910-1930<sup>1</sup>

1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
c.												
7.8	7.9	9.3	8.1	6.9	6.7	6.9	7.8	7.6	7.7	7.7	7.8	7.5
8.2	8.6	9.7	8.8	7.5	7.7	7.5	8.4	8.1	8.1	8.1	8.1	7.9
8.1	8.7	10.0	9.1	7.4	7.9	8.0	8.1	8.0	8.0	7.6	8.0	7.9
8.2	8.7	9.8	8.9	7.6	8.0	7.4	8.1	8.0	8.0	8.0	8.1	7.8
8.1	8.7	10.1	9.1	7.7	7.9	7.3	9.1	8.0	8.2	8.2	8.1	8.2
8.2	8.6	9.3	8.1	7.3	7.3	7.3	8.1	8.0	7.8	8.0	8.0	7.7
-	-	-	-	-	-	-	8.3	8.3	8.3	8.3	8.4	7.8
8.2	8.7	9.7	8.6	7.3	7.3	7.3	8.5	8.0	8.1	8.0	8.1	7.9
7.3	7.3	9.0	9.1	6.8	6.5	6.7	7.4	7.4	7.4	7.4	7.4	7.4
8.3	8.7	10.4	9.3	7.9	7.9	8.1	8.9	8.7	8.6	8.5	8.6	8.4
8.5	9.0	9.8	8.8	8.1	7.8	8.1	9.3	9.3	9.1	8.7	8.7	8.5
8.4	9.0	10.6	9.3	7.3	7.7	8.1	8.7	8.7	8.7	8.7	8.7	8.3
8.0	8.0	10.4	9.2	8.1	8.0	8.1	8.6	8.4	8.7	8.7	8.7	8.5
-	-	10.9	9.7	7.9	8.0	8.1	8.7	8.2	8.0	8.0	8.4	8.1
7.1	7.2	8.5	7.3	6.3	6.1	6.1	6.8	6.4	6.4	6.4	6.5	6.2
7.8	7.6	9.0	8.3	7.5	7.5	7.5	8.3	7.5	7.5	7.5	7.6	6.7
7.0	7.3	8.9	7.7	6.2	6.0	6.0	5.9	5.9	6.0	6.0	6.3	5.9
8.2	7.9	9.3	8.6	7.3	7.3	7.5	8.5	7.9	6.7	6.4	6.4	6.3
5.2	5.8	8.1	5.9	5.3	5.3	5.2	5.6	5.9	6.0	6.0	6.0	6.0
6.3	6.3	7.6	6.6	5.4	5.3	4.6	5.7	5.1	5.0	5.0	4.9	16
6.8	6.7	7.8	7.1	5.8	4.8	5.3	6.0	5.5	5.7	6.0	6.9	6.5
-	-	8.4	7.1	6.0	6.0	5.4	6.6	6.7	6.7	6.7	6.7	6.5
8.0	8.1	9.5	7.2	6.9	6.9	7.4	7.9	6.7	6.7	6.7	6.8	7.1
7.2	7.5	8.5	7.1	6.0	6.0	6.0	6.6	6.8	7.1	7.0	7.1	6.1
7.4	7.5	9.0	7.6	6.4	6.3	6.6	7.3	7.3	7.4	7.3	7.4	7.2
7.3	7.3	8.8	7.4	6.7	6.7	7.0	8.0	7.8	7.7	7.7	7.9	7.5
7.3	7.3	8.8	7.5	5.9	6.0	6.2	6.8	6.7	6.7	6.7	6.9	6.5
7.3	7.2	8.8	6.6	6.0	6.0	6.0	6.7	6.7	6.7	6.7	6.9	7.0
6.3	6.3	7.9	6.1	5.7	5.6	5.6	6.7	6.7	6.2	6.3	6.6	6.5
7.1	7.3	8.9	7.7	6.7	6.7	6.8	7.3	7.3	7.3	7.3	7.3	7.1
-	-	-	-	-	-	6.0	6.4	7.3	7.3	7.3	7.3	7.0
7.3	7.3	9.0	7.5	6.0	6.0	6.1	6.9	6.7	6.7	6.7	7.0	6.7
6.9	7.0	8.4	7.2	5.9	6.0	6.3	7.3	7.6	7.7	7.7	7.3	7.4
7.3	7.6	8.7	7.7	6.7	6.7	6.8	7.3	7.3	7.3	7.3	7.5	7.6
7.3	7.5	8.7	8.2	6.7	6.7	6.8	7.3	7.3	7.3	7.3	7.4	7.1
8.0	7.4	8.3	6.9	5.3	5.3	6.0	7.2	7.6	7.4	7.3	7.3	6.9
7.0	7.3	8.9	7.6	6.4	6.0	6.3	7.3	7.3	7.6	7.5	7.4	7.1
7.3	7.3	9.0	7.8	6.7	6.7	6.7	7.3	7.3	7.3	7.3	7.2	6.7
7.3	7.3	8.8	7.8	6.6	6.0	6.4	7.4	7.3	7.3	7.3	7.3	6.8
7.3	7.3	8.9	7.8	6.7	6.0	6.4	7.4	7.3	7.3	7.3	7.0	6.5
7.2	7.3	8.6	7.6	6.3	6.0	6.3	7.3	7.3	7.0	7.0	7.0	6.6
7.3	7.3	8.7	7.6	6.7	6.6	6.0	7.2	7.3	7.2	7.3	7.2	6.8
7.3	7.3	8.6	7.6	5.8	6.0	6.3	7.3	7.6	7.7	7.2	7.0	6.8
7.3	7.4	9.0	8.0	6.6	6.0	6.3	7.3	7.3	7.7	8.0	8.0	7.7
7.2	7.3	9.0	8.1	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.9	6.4
7.3	7.4	8.8	8.1	6.7	6.7	6.9	7.9	8.0	8.4	8.7	8.7	8.2
-	-	-	-	-	-	6.8	6.0	6.0	8.0	7.7	7.6	7.1
7.2	7.3	8.2	7.1	6.0	5.7	5.8	6.8	6.7	6.9	7.0	7.2	7.1
-	-	-	-	-	-	6.8	7.9	7.0	6.7	7.3	7.6	7.7
9.4	9.8	11.4	8.8	7.4	7.4	7.4	8.7	8.3	8.1	8.3	8.3	8.1
-	-	-	-	-	-	8.6	7.5	8.9	8.3	8.3	8.3	8.1
8.0	8.0	9.8	7.2	6.7	6.7	6.9	8.0	8.0	7.8	8.0	8.2	8.0
8.3	8.3	9.8	8.3	7.1	6.7	6.8	7.3	7.3	7.0	6.4	6.2	6.7
8.3	8.3	9.8	8.4	6.6	6.5	6.8	7.3	7.3	7.0	6.4	6.2	6.7
7.3	7.4	8.7	8.0	6.8	6.1	6.0	7.5	6.7	6.7	6.8	7.0	6.7
7.3	7.3	8.2	7.8	6.4	6.0	6.2	7.8	7.0	7.0	6.8	7.0	6.6
7.3	7.5	9.2	8.4	7.2	6.2	5.7	7.2	6.4	6.4	6.7	6.9	6.8
8.7	8.8	9.2	8.1	6.7	6.6	6.9	8.4	8.0	8.3	8.2	8.2	7.3
8.7	8.9	8.8	7.8	6.8	7.0	6.5	8.2	8.0	8.5	8.2	8.3	7.2
7.7	8.0	9.1	7.8	6.7	6.7	7.1	8.5	8.0	8.0	8.0	8.0	7.1
9.0	8.6	9.4	9.8	6.6	6.7	7.1	8.5	8.0	8.0	8.0	8.3	5.5
9.6	9.1	9.7	7.4	6.6	6.0	6.8	8.1	8.0	8.5	8.6	8.2	6.7
8.1	8.2	9.7	7.9	7.4	7.1	7.7	8.8	8.2	8.6	8.7	8.1	5.6
8.0	8.0	9.2	7.4	7.6	6.2	6.8	8.3	7.7	8.4	8.9	8.7	5.7
-	-	-	-	-	-	9.1	10.0	8.1	8.9	8.9	8.9	5.8
7.8	8.4	9.7	7.9	7.6	7.1	7.5	8.0	7.9	8.0	8.0	8.2	5.9
7.8	8.3	9.8	8.3	6.9	7.2	7.4	8.2	8.1	8.4	8.0	8.3	6.0
8.6	8.1	10.0	8.0	7.6	7.8	8.0	9.4	9.4	9.7	9.0	9.3	8.8
9.1	9.0	10.4	9.7	8.3	7.7	7.8	9.1	8.8	9.2	9.5	9.5	9.2
9.8	9.6	9.8	10.0	9.8	7.7	7.7	8.0	8.1	8.3	9.9	10.0	9.6
8.8	8.9	11.2	10.8	8.3	8.3	8.3	10.0	10.0	10.0	10.0	10.0	6.3
9.0	8.9	10.9	9.3	7.9	7.7	7.7	9.2	9.3	9.5	9.3	9.2	6.4
8.9	8.9	10.2	9.1	8.8	8.3	7.8	8.1	7.8	8.7	8.9	9.0	6.5
8.9	8.9	9.7	8.2	7.0	6.4	6.9	8.4	7.8	8.7	8.9	9.0	6.6
8.9	8.9	10.1	9.2	7.4	7.4	7.7	8.8	8.9	9.4	10.0	10.0	6.7
9.2	8.9	10.2	9.3	8.0	7.4	7.6	8.8	8.9	8.9	8.9	9.0	6.8
-	-	13.4	12.1	9.7	8.3	9.0	11.9	10.0	10.0	10.6	10.0	9.9

## APPENDIX K

LIST OF CANADIAN BAKERIES CONTROLLED BY FLOUR MILLING COMPANIES<sup>1</sup>

## 1. LAKE OF THE WOODS MILLING COMPANY, LIMITED

<i>Inter City Baking Company, Limited, Montreal</i> (6 bakeries):	Date acquired <sup>2</sup>
Standard Bread (Montreal), Limited.....	Montreal, Que..... February, 1928
A. & L. Strachan, Limited.....	"..... March, 1928
Hawkesbury Bakery, Limited.....	Hawkesbury, Ont..... May, 1930
Standard Bread Company, Limited.....	Ottawa..... January, 1928
Renfrew Cash Bread, Limited.....	Renfrew..... July, 1930
Brown's Bread, Limited.....	Toronto..... January, 1928

*Inter City Western Bakeries, Limited, Winnipeg* (9 bakeries):

Speirs Parnell Baking Company, Limited.....	Winnipeg, Man..... November, 1928
Clifton Bakery, Limited.....	Moose Jaw, Sask..... December, 1928
Crown Bakery, Limited.....	Regina..... December, 1928
Saskatoon Bread Company, Limited.....	Saskatoon..... January, 1929
Weyburn Bread Company, Limited.....	Weyburn..... January, 1929
Golden West Bakery, Limited.....	Calgary, Alta..... January, 1929
Medicine Hat Baking Company, Limited.....	Medicine Hat..... January, 1929
Cowan Dodson Bakeries, Limited.....	Vancouver, B.C..... February, 1929
Rennie and Taylor, Limited.....	Victoria..... January, 1929

## 2. MAPLE LEAF MILLING COMPANY, LIMITED

*Canada Bread Company, Limited, Toronto* (11 bakeries):

Canada Bread Company, Limited.....	Montreal, Que.
Canada Bread Company, Limited.....	Brantford, Ont..... May, 1928
" " "	Galt
" " "	Hamilton..... November, 1920
" " "	London..... January, 1926
" " "	Ottawa..... August, 1923
" " "	Avenue Road..... Toronto..... 1911
" " "	Bloor Street..... "..... 1911
" " "	Danforth Ave..... "..... 1911
" " "	Walkerville..... May, 1928
Canada Bread Company, Limited.....	Winnipeg, Man..... 1911

*Canadian Bakeries, Limited, Winnipeg* (15 bakeries):

Canadian Bakeries, Limited.....	Moose Jaw, Sask..... September, 1925
" " "	North Battleford..... December, 1929
" " "	Prince Albert..... November, 1927
" " "	Regina..... September, 1925
" " "	Saskatoon..... July, 1928
" " "	Swift Current..... September, 1927
" " "	Yorkton..... January, 1930
Canadian Bakeries, Limited.....	Calgary, Alta..... September, 1925
" " "	Edmonton..... July, 1928
" " "	Lethbridge..... September, 1925
Canadian Bakeries, Limited.....	Nanaimo, B.C..... September, 1925
" " "	New Westminster..... September, 1925
Stevenson Brothers, Limited.....	Vancouver..... September, 1925
Canadian Bakeries, Limited.....	Vancouver..... September, 1925
" " "	Victoria..... September, 1926

<sup>1</sup> Bakery companies acquired and not now operated are omitted from this list.<sup>2</sup> Date on which control was acquired by the controlling bakery company.

## APPENDIX K—Continued.

2. MAPLE LEAF MILLING COMPANY, LIMITED—*Con.**Dominion Bakeries, Limited, Toronto (15 bakeries):*

		Date acquired
Dominion Bakeries, Limited.....	Belleville, Ont.....	December, 1928
" " .....	Brantford .....	
" " .....	Chatham .....	
" " .....	Cobourg .....	
" " .....	Cornwall .....	
" " .....	Guelph .....	
" " .....	Kingston .....	
" " .....	Ottawa .....	April, 1929
" " .....	Owen Sound .....	November, 1928
" " .....	Pembroke .....	October, 1929
" " .....	St. Catharines .....	
" " .....	Sarnia .....	
" " .....	Stratford .....	March, 1929
" " .....	Wallaceburg .....	
" " .....	Windsor .....	September, 1928

*Eastern Bakeries, Limited, St. John (8 bakeries):*

Eastern Bakeries, Limited.....	New Glasgow, N.S.
" " .....	Sydney

Eastern Bakeries, Limited.....	Bathurst, N.B.	
" " .....	Campbellton .....	
" " .....	Fredericton .....	July, 1928
" " .....	Moncton .....	June, 1928
" " .....	Saint John .....	May, 1928
	Sussex .....	

## 3. OGILVIE FLOUR MILLS COMPANY, LIMITED

*Consolidated Bakeries of Canada, Limited, Toronto (13 bakeries):*

Date acquired

James M. Aird, Limited.....	Montreal, Que.....	1929
Dent Harrison and Sons, Limited.....	" .....	1929
James Strachan, Limited.....	" .....	1929

Palmer Baking Company.....	Chatham, Ont
Ideal Bread Company, Limited.....	Hamilton .....
Neal Baking Company, Limited.....	London .....
Stocks Bread, Limited.....	Peterborough .....
Neal Baking Company, Limited.....	St. Thomas .....
Norris Brothers, Limited.....	St. Thomas .....
Neal Baking Company, Limited.....	Sarnia .....
Ideal Bread Company, Limited.....	Toronto .....
Nasmiths, Limited.....	Toronto .....
Neal Baking Company, Limited.....	Windsor .....

*McGavin Bakeries, Limited, Edmonton (5 bakeries):*

McGavin Bakeries, Limited.....	Moosejaw, Sask.....	March, 1929
" " .....	Regina .....	January, 1930
" " .....	Saskatoon .....	February, 1929

Western Bakery, Limited..... Lethbridge, Alta..... April, 1929

Golden West Bakery, Limited..... Victoria, B.C..... March, 1929

APPENDIX K—*Concluded*

## 4. WESTERN CANADA FLOUR MILLS COMPANY, LIMITED

<i>Purity Baking Company, Limited, Toronto</i> (14 bakeries):	Date acquired
Brosseau, Limited.....	Montreal, Que.....
Sanche Cardinal, Limited.....	" August, 1925
Jackson's Bread, Limited.....	Hamilton, Ont.....
Purity Bakeries, Limited.....	Kingston.....
" "	Lindsay.....
Jackson's Bread, Limited.....	London.....
Purity Bakeries, Limited.....	Peterborough.....
Jackson's Bread, Limited.....	Simcoe.....
" "	Tillsonburg.....
Purity Bread, Limited.....	Toronto.....
Bryce Bakeries, Limited.....	Brandon, Man.....
" "	Winnipeg.....
Model Bakery, Limited.....	Calgary, Alta.....
Robertson's Bakeries, Limited.....	Vancouver, B.C.....
	May, 1929
	September, 1926

















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